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SUICIDE

AN ESSAY ON COMPARATIVE MORAL STATISTICS

BY

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PREFACE.

THIS book has had the kindest reception in Italy, and the Royal Institution of Lombardy, one of the most esteemed and influential scientific bodies of my country, has judged it worthy of recognition. So fortunate a reception is not due so much to the slight merits the work may possess, as to the nature of the subject of which it treats; because every day cases of suicide occur and increase under our eyes, and everyone is warmly interested in this tragic psychological characteristic of our age.

I believe this work to be the fullest and most faithful summary of that section of moral statistics which treats of the tendency to suicide, and I offer it as an essay in the synthetic and positive direction, which, thanks to the efforts of the great contemporary English thinkers, now rules the psychological and social sciences. The fundamental conception of it is not new, taking and treating, as it does, one side of that moral and intellectual evolution of mankind, whose theory is due to Darwin, Buckle, Herbert Spencer, Wallace, and Bagehot; but the having applied it to an enquiry into the psychological phenomenon of voluntary death, and the ethnological, biological, and

social characteristics, this appears to me to be the new and original part of the work. For if the critic finds that it resembles too nearly the well-known work of Professor Wagner of Berlin, called 'Die Gesetzmässigkeit in den scheinbar willkürlichen menschlichen Handlungen' (Hamburg, 1864), I answer that this excellent book is scarcely known to professional statisticians, nor do I think it has been translated, whilst I, on the other hand, availing myself of additional official publications, have made use of the latest statistics of suicide.

There is certainly great resemblance between this book and that of the German writer, as well in its intentions as in the arrangement of the subject, but this is explained by our having drawn from the same sources; and as to the intention and application of the statistical method to the phenomena of the moral world, it is the objective demonstration of modern determinism. However, I read and hear it said that Wagner has now modified his opinions with regard to freewill in social acts, nor am I surprised at it when I consider that the economical studies in which he is most versed may have driven him from that positive method by which human actions are considered under a physiological aspect. As for myself, having devoted many years to the observation and the treatment of mental disease, I am convinced more and more every day of the universality and regularity of the laws which influence human actions; nor do I think that the statistician, the doctor, the philosopher, the legislator can with impunity dispense with the modern mode of psychology studied by the objective method.

As to this English edition I think it right to remark that it differs in many points from the Italian. The book, which originally reached 512 pages, was reduced by desire of the publisher to more moderate proportions. Thus many parts have been suppressed, and amongst them almost all the introduction which turned upon statistics as applied to moral phenomena, besides a long and detailed account in the first chapter of the increase of suicide in all the countries, even the smaller ones, of Europe, and in several non-European. To keep still more within the new limits imposed upon me, I have shortened to the utmost the theoretical part, judging it more useful to leave to the prudent English reader the application of the facts than to reduce the number of facts themselves. The portion relating to England and Wales, however, has been revised and enlarged, and in many places the figures derived from Italian sources (on which, especially, the original book bases its arguments) have been corrected by those supplied in Dr. Farr's excellent publications.

I have thus, if I do not deceive myself, rendered the work more attractive to the English reader; and whoever wishes, either for the purpose of study or for a closer comparison, to have fuller knowledge on the international statistics of suicide, will find it by reading the Italian edition.

Finally, I do not conceal that I felt no little fear in submitting this work to the, to me, most weighty judgment of English public opinion, and that if it had not been that the offer of the Committee of the 'International Scientific

Series' honoured me greatly by placing mine amongst the great names of Tyndall, Bain, Maudsley, Stewart, and Herbert Spencer, I should perhaps have refused permission for this translation. But I was moved chiefly by one reason—that of making known to foreigners that Italy also works in the new method of philosophy, and because those who love my beautiful country as fervently as I love it, desire with all their strength to place it on a level with the most advanced and civilized nations of Europe, the chief of which is the great country of Shakspere and Darwin, to which I send from my native land the warmest greeting.

ENRICO MORSELLI, M.D.

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SUICIDE.

INTRODUCTION.

INTENTION AND DIVISION OF THE WORK.

SUICIDE is one of the voluntary human acts on which statistical works have dwelt with special predilection, and is one of the chief subjects of social physics. The psychological meaning of this moral fact has always been enveloped in great metaphysical obscurity, because suicide appears less susceptible of positive appreciation than all other expressions of the human will. The social significance of voluntary death began to be evident when a comparison was made between *homicide* and *suicide*,[1] and therefore the true literature of suicide did not arise before the time of the philosophic movement which distinguished the second half of last century. Nevertheless, mention was made of it amongst the ancients; Greek and Latin civilization had often seen their best representative men lost to them by means of suicide. But it is certain that the subject of self-destruction did not enter into its positive phase until after statistical researches.

[1] According to most people the word *suicīdium* was used for the first time by Desfontaines, in the last century. At the same time were also formed the words *propriicidium* (Latin) and *αὐτοχειρία* (from the Greek).

If ancient history is rich in facts such as those of Zeno, Lucretius, and Cato, and if ancient literature is of philosophical and moral value, such as the often quoted words of Plato, Pliny, Cicero, and Seneca, yet the character which classical paganism attributed to suicide was simply individual. The famous phrase of the Stoics, '*Mori licet cui vivere non placet*,' is nothing more than the concrete formula of this individualism of the ancient philosophical opinions. Religion and laws have since declared suicide to be criminal, but they have never risen to the consideration of this crime under the more generic aspect of a tendency certainly hurtful, but one connected with the natural developement of society.

This new aspect of suicide could not become clear where metaphysical systems prevailed; it was necessary to collect all the facts, to unite them together, to consider their analogy and differences, to do, in short, precisely the reverse of what philosophy had done up to that time. That is not to start from a preconceived system, but to base arguments on facts supplied by observation and, when possible, by experiment. In the natural sciences the experimental method was already introduced, and in the exact sciences the calculation of probabilities; thus the conviction came to be formed that to obtain knowledge of the true natural characters of phenomena, thought must remodel itself in its own way and recommence patient but productive analysis; that is to say, it must return to the natural process by which practical knowledge has been built up from generation to generation. For the phenomena of social life this aim can only be attained by statistics. The great reforms in habits and ideas which marked the second half of the eighteenth century prepared the ground, and the initiation of the people to a more direct participation in political

events especially helped it. And since nations are constituted, by developing, and transforming themselves through millions of individuals, it was natural that the science of order and numbers should be applied in a uniform way to the progression of living and operating numbers. From this was brought to light that perpetual element of force and developement, the principle of organic and functional transformation, or the *dynamics of population.*

The old philosophy of individualism had given to suicide the character of liberty and spontaneity, but now it became necessary to study it no longer as the expression of individual and independent faculties, but certainly as a social phenomenon allied with all the other racial forces. The real statistics of suicide began only in our century, and even late in it. It is true that from the end of the eighteenth century data were being collected in Switzerland and Paris (Mercier, 1783), but they were isolated figures, and perhaps on account of little exactitude not serviceable for analysis; later they were of value, however, in establishing the important statistical law of the progressive growth of suicide in civilized countries. To Switzerland belongs the credit of having been the first to gather its facts from the entire population; while France has the honour of having undertaken the regular and uniform publication of them in the registers of the Minister of Grace and Justice (1817-27). At the same time official statistics were begun in some other European States—Mecklenburg (1811), Prussia (1816), Norway (1816), and Austria (1819); which examples, on account of the impulse given to statistical works by the courage of the first sociologists, were followed by Hanover, the Canton of Geneva, Belgium, Saxony, Denmark, Bavaria, England, and so on by all the European States, from the

most powerful to the smallest. The Southern States were the last to follow.

On the first statistical data of suicide Quetelet and Guerry were able to found the bases of that part of moral statistics, finding therein, indeed, the laws making known new grounds of comparison between State and State, between race and race, whence a marvellous reformation of ideas relative to voluntary death arose, recognized immediately as a most important element of social dynamics. This reform was aided by the simultaneous foundation and identification with the objective sciences of a new science which took for study the normal and morbid functions of the human mind. We find similarity of origin neither small nor indifferent between sociology and psychological physical pathology, both the progeny of our times, both arisen out of the ruins of the metaphysics of the schools, and united in the intention to get rid of the everlasting question of the relations between man and the rest of nature. It would be worth while, as far as it deserves, to investigate the historical and scientific relations between madness and suicide, and to show how often philosophical, religious, and judicial opinions relative to the morality and criminality of suicide clash with its obvious connexion with the morbid perturbation of the mind; but ours is not a work intended to collect and explain the reason for suicide from the psychiatric side, which elsewhere has been fully treated by Esquirol, Falret, Lisle, Brierre de Boismont, Cazanvieilh, Petit, Des Étangs, Stark, Schürmayer, and a hundred other alienists, medical jurists, and moralists. It is true that statisticians and alienists have heretofore derived advantage from each other's works in studying the psychological and racial laws of self-destruction, arriving at synthetical results previously unforeseen and unex-

pected. The knowledge of suicide, or rather of suicidal tendency, was only then received among the positive results of social psychology, and ceased to depend *exclusively* on the systems of philosophers and jurists.

At the same time, however, the objections with regard to the insufficiency of the method of observation apply more to the statistics of suicide than to those of other things. The difficulties of gathering exact data of various times and various places are great. Not only is it sometimes impossible to assign the true cause of death, not only is the medico-forensic question of the distinction between suicide or homicide or accidental death (especially in the case of drowning) difficult of solution, but with respect to violent death statistics encounter obstacles in the prejudices, habits, indifference, or bad faith of the public. It is more than ever apt to excite hostility and deceit; a feeling of shame and the remembrance of the infamy attached for a long course of years to this act, impel families, relations, and friends to hide or to falsify the true cause, the manner, and particulars of death. There are usages which are opposed to the examination of the circumstances of the case from which alone certainty can be obtained; usages which, as a relic of the middle ages, survive in central Europe, in Saxony, in some of the Swiss Cantons, and are not wanting even to highly civilized Great Britain. All these inaccuracies were certainly greater in the early days of statistics than at the present time; nor do we wish to deny that, starting from figures not devoid of errors, certain additions and comparisons with different periods and countries may be set forth without sufficient prudence; but what we say of moral statistics in general may also be said of suicide. Demography—that is, the science of races—does not give its results as absolute; if, as is probable, it is granted that

the technical process, the origin of obtaining data, was uniformly erroneous, these results may at least be taken at their relative value, and anyhow the homogeneity and the powers of comparison of figures may consist as much in approaching precision as in being removed from it at a uniform distance. The fear of important inexactitude would be exaggerated, especially in the statistics of suicide in those States which possess a long series of observations; therefore it is to be conjectured that statistics may by degrees approach a condition of greater exactness, as well by the lessened unwillingness of citizens to give information about themselves and their affairs, as by practical experience and the education of those chosen for the office of registrars and controllers. Such a result has been helped by the general increase of culture and the disappearance of many foolish popular prejudices, the reforms and uniformity of registered statistics, international congresses, societies, periodical publications, and all the copious literature of the new science; the greater decentralization in the administrative offices, the increased respect for laws and liberty, and perhaps, more than all the rest, the feeling in the public officials of serving the interests of their country and not those only of the Government. And if statistics are not yet without faults, it is to be hoped that with such improvements in the social and moral conditions of the people, they will become continually more exact and useful by true answers, that is to say, of absolute worth and of intrinsic homogeneity.

In the meantime it is certain that as long as facts are collected in their, so to speak, objective aspect, and, with regard to suicide, the sex, age, social condition, the race and religion of the individual, the time, place, and mode of death are registered, statistics can answer triumphantly to all these objections. Tangible and numerical facts are

in question, and up to this point the subject matter lends itself to the measurement and elaboration of demography. But there is one defect in the statistics of suicide which can be easily pointed out, and on which it is well to say something; we refer to the limits and classification of *individual motives*. It is true that dealing here with the inward phenomena of conscience, statistics cannot presume to learn the true mental state or psychical movement which has preceded the act of suicide; it is necessary to limit ourselves to an approximation, which often errs by deceit, sometimes changes and sometimes forces the meaning of the facts. In that part of our work relating to causes it will however be seen that statistics do not assume undue powers and merits; the deductions on the psychological side are much more modest than its adversaries find it convenient to confess. If statistics speak of motives and seek their cause in sex, age, and race, it is because in the cases considered the determining causes of the act are evident, whether treating of physical causes or whether there remains unsuspected proofs of them by the act of the suicide himself. Brierre de Boismont in 4,595 cases of suicide has found that 1,328 of them (1,052 men and 276 women) left their last thoughts written, to which must be added those who expressed them by word of mouth, and the life and habits of most of whom were so well known as to leave no doubt to those who wished to deduce a reason from them to explain the moving cause of their last act; for instance, those suicides who had always led dissolute lives, who had strong passions or domestic dissensions, or who had suffered financial catastrophes. The motives then which may lead a man to take away his life are nearly the same which lead him to crime; his passions, his overpowering needs, and his inclinations are too well

known to us. There is also an abundant number of predisposing causes which give no support to the usual scepticism, and are dependent upon a morbid organization, either congenital or acquired—heredity, mental alienation, pellagra, delirium, drunkenness, hypochondria, physical disease. But also among the causes which touch rather upon the psychological aspects of cerebral activity (*moral causes*), not a few have been made plain by an exaggerated display, and are all the impulsive passions—love, jealousy, ambition, shame, religious or political fanaticism, the fear of punishment, &c. Nevertheless the motive of every suicide is not alone that which is apparent; there are other more secret causes whose existence and influence elude even the suicide himself, because they act upon him almost unconsciously (such as education, moral contact, imitation, physical and moral atmosphere), and which statistics have had no means hitherto of investigating. Experimental psychology also meets nearly the same difficulties when the objective method is applied to the study of the passions, of the instincts, of human or animal habits; but neither psychology nor moral statistics claim to discover the nature of psychical activity, knowing well that such a metaphysical enquiry is beyond their aim and the powers of reason. Both arrive at positive knowledge by considering the protean prism of the human conscience through all its phases, but they stop short at phenomena, that is, at sensible phases; and it is unquestionable that even when the numerical element should happen to fail, or should appear inadequate for psychological deductions, we should draw the same results from the moral analysis of men and nations as those that the rough numbers of statistics would have furnished.

But further it is said:—your statistics speak only of

actual suicides, and take no count of those attempted, which, however, would be necessary if the general laws of this human act had to be found. It is true that the success of attempts at suicide often depends upon independent individual circumstances, and that these reveal, as do the accomplished cases, the psychological propensity of the man for self-destruction. But if these are wanting among the elements which serve as a basis for the calculation of statistics, it cannot be ascribed to the insufficiency of the latter, since, if so many difficulties are met in registering the accomplished cases, they are much greater with regard to those only attempted, as it is the interest of the family and of the individual himself to keep them from publicity. All statisticians confess the impossibility of getting precise data; nevertheless something of the kind has been attempted. Brierre de Boismont, for the period 1834–43, has reckoned 1,864 attempted against 4,595 effected suicides at Paris, which gives a result of 1 : 2·46. In the two years 1836–37 London gave 192 accomplished cases, and fully 155 attempted, and prevented by the police; that is to say :: 1 : 1·23 ('Journ. of the Stat. Soc.' I.) And in the Grand Duchy of Baden in the space of three years, 1854–56, against 417 fatal cases there were only 22 attempted, that is :: 1 : 18·9. We cite these three instances, between which there is so great a difference, because it appears at present that it is best to do without more of those few data which exist for suicidal attempts, rather than to introduce into the calculation so variable and uncertain an element; they would remove moreover the statistics of suicide from that relatively sufficient degree of precision which now constitutes their best justification. That this is true their results prove.

The uniformity, the regularity, and the constancy of the results constitute in fact the best answer to many

objections. All the means agree perfectly, and this is how the study of the great series of facts gives to statistics that character of an exact science and of social psychology which we attributed to it at starting. By its means the individual variations disappear, and our view takes in the whole of society in the expression of its wants and tendencies, that is, in the functions of its complicated organism. The most fatal and at the same time the apparently most arbitrary human actions, suicide and crime, show themselves to us in their similarity subject to numerous influences, which the examination of every single case would not suffice to reveal to us, and which collectively are universal, perpetual, and intense, and such as the most positive mode of psychological study would fail to discover in the individual. The charges and objections made against statistics of suicide take their rise from the individual thought which ethics and philosophy have ever had; they conceal the fear that with such synthetical enquiries the limits of human freedom, before so unbounded, would become restricted to acknowledging that the apparent spontaneity of moral acts depends only on the individual and egotistical character of the determining motives. These fears are not without cause for those who consider the results of sociology; with the laws that regulate social organism, the individualism of human activities disappears, as in a most complicated piece of mechanism the movement of one single wheel constitutes a small part of the whole work.

From the examination of the many and various causes which influence these things, statistics trace the indications of the prophylactics and therapeutics of suicide against which laws and philosophy show themselves powerless. The terrible increase of suicide at the present time is the first result brought to light by statistics, and would be sufficient to establish their value as a branch of social

science. By their means are rendered tangible to us comparisons between States and nations, between races, religions and opinions, between climates, constitutions, different individuals, and they materialize for us, so to speak, historical oscillations, the changes by time, and the relation with the various factors of civilized times. Thus it is that the true treatment of suicide is as far from the moral means in which theology and philosophy had faith, as modern physiological therapeutics has left behind the medical fancies of Paracelsus and Cardano. To those who make a show of disputing statistical investigations, future statistics will answer better than we, when, by a long series of averages, they will be in a condition to judge comparatively whether the psychological and moral conditions of mankind are improving, and if the science of Quetelet and of Guerry erred in pointing out the most efficacious means for raising a barrier against the increase of suicide. Every order of facts may be submitted to analytical and synthetic examination, but social phenomena, perhaps, enjoy this advantage more than others, as is well shown by the racial laws derived from their statistics. The value of synthesis increases, as a logical consequence, in relation to the extent and severity of the analysis, wherefore we consider it better to enlarge our collection of empirical facts than pursue the generalization of their collective signification; and this the rather that there has been a desire to accuse statistics of seeking at all cost to take advantage of their numerical tables and arithmetical formulas. We do not admit however that the numerical analysis of facts, whether organic or functional, can accommodate themselves to the intelligence of all. Statistics may be compared to a two-edged weapon, murderous to the inexperienced or malicious who wishes to use it in his own fashion; and so in the observation

and classification of their data it is necessary to bring to bear practice, moderation, and prudence. It is always easy to lay down laws and then model one's own researches upon them and make facts bend to our own preconceptions and *à priori* reasoning. This Procrustean bed is not suitable to a science of observation which studies objective phenomena. Let us then have facts first and derive our laws from them afterwards, which, however, is not always easy or possible. We therefore divide this book into two parts, the *analytical* and the *synthetic*, believing with Newton that the '*investigatio rerum ea methodo quæ vocatur analytica semper antecedere debeat eam quæ appellatur synthetica.*'—(Optic., L. III. q. 31.)

For the analytical part we have before us a long series of facts and reports to investigate; that is to say, beyond the social phenomena of suicide in itself, all those influences whether of an external nature or proceeding from individual temperament which affect the number and the methods of voluntary deaths. Engel especially has insisted upon the necessity of accompanying the study of racial laws with that of the organization of human society, and of its material, moral, intellectual, and political education, as well as of the changes in the locality and periods it passes through. Wagner, Oettingen, Bertillon, Morpurgo, and Haushofer very properly wished a more or less full account kept of all these influences. Although statistics cannot now fill up the very full table that Engel[1] desires, yet if its dignity as the science of the most complicated social organism is to be preserved, it must be placed, maintained, and pushed forward on

[1] *Zeitschrift des Preussischen statistischen Bureaus*, 1871, et passim. See also Engel, *Die Bewegung der Bevölkerung im Königliche Sachsen*, 1852, Dresden.

its analytical course. With respect to suicide, the analysis may be based on facts under three different aspects; either they may be considered collectively as the dynamic element of population, or we may study their variations under the influence of cosmic, ethnic, social, intellectual, historical, and individual factors, or investigate the different modes of action in relation to the factors above indicated. Wagner, who has written the most complete statistical work on suicide that has hitherto appeared, developes it according to an ideal scheme taken from Engel, in which are indicated three classes of influences, external or natural, biological, and social (loc. cit. p. 85). But many of these statistics neither give nor can yet give positive information, so that many columns of his table remain blank, or are filled up by the imagination of the writer. We wish to be more prudent, and in our analysis we limit ourselves to those influences on which alone sufficient knowledge is furnished by statistics. After having shown the increase of suicide during this century, we shall employ ourselves especially with:

1. *Cosmic or natural influences.*
2. *Ethnic or social (demographic) influences.*
3. *Social influences.*
4. *Individual biological influences.*
5. *Individual psychological influences (determining motives).*

Studying finally the mode and place of suicide, we shall see how even in the choice of these man is subject to the numerous influences just named.

In the second part, the *synthetic*, we shall be as brief and measured as possible. After having drawn an inference from facts of what is the true nature of the suicidal epidemic of our age, we shall add a few observations on the prophylactics and therapeutics of this fatal disease of civilized peoples.

PART FIRST.

ANALYSIS.

CHAPTER I.

INCREASE AND REGULARITY OF SUICIDE IN CIVILIZED COUNTRIES.

FROM statistics collected up to this time is demonstrated th most painful fact, that suicide has increased from the beg. ..ing of the century, and goes on continually increasing ir almost all the civilized countries of Europe and of the new world. Loewenhardt, Salomon, Legoyt, Oettingen and Wagner have especially contributed to demonstrate by a 'ual and comparative figures the alarming increase of tl. · social calamity; but as there is a desire to deny to civiliz.tion the sad privilege of increasing cases of madness, so it is pretended also that the increase of suicide is more apparent than real. Such objection is founded upon the greater accuracy with which suicides are now registered, which, if it may be true for the early periods that official statistics speak of, is not so for the later, when it might be supposed that the registering of them had become uniform, guided by homogeneous laws, and especially when limited localities and well-defined popu-

lations are under consideration. The certainty of the figures and the regularity of the progressive increase of suicide, from the time when statistics were first collected to now, is such and so great even in respect to countries different in race, religion, and number of inhabitants, that it is not possible to explain it otherwise than as an effect of that universal and complex influence to which we give the name of *civilization*.

By the statistical returns of suicide is disclosed then, through a long series of years, such a regularity as to surpass, as Wagner proved, the statistical laws of births, deaths, and marriages. This fact has helped to change radically the metaphysical idea of the human will, and in the hands of Quetelet, Wagner, and Drobisch, has served as a formidable weapon to deny the reality of independent human actions, and to declare that the same laws exist in the moral as in the physical world. This regularity shows itself in the repetition of the same numbers in the long numerical series, from which the ulterior phases may be anticipated with great probability. This important result of moral statistics is conclusively confirmed by the actual and comparative numbers of suicides in the principal European States, which we have drawn up in two tables (Tables I. and II.) The first contains the dates which we have been able to collect for twenty-one States, beginning from 1816–20, because Sweden and the Canton of Neuchâtel alone possess anterior data (the former from 1750, the latter from 1801). We have not always been able to complete the series, but those who know the difficulty of similar researches will pardon these defects, since this is, as far as we know, the greatest collection of statistical data on suicide which has ever been brought together. Our table shows the regularity with which the numbers are repeated from year to year in each country, especially

in those having a high rate of suicide (England, Prussia, France, Saxony). It also shows the general increase of voluntary death by which the present century is marked; but in order to make this apparent in all its gravity it is necessary to compare the partial averages *of a long series of observations*, as we have done in Table II., comparing the different spaces of five years from after 1816. If we make the first five years' average equal to 100·0, we arrive at the proportional progressive increase. Of the sixteen countries in our table only one has had the maximum of suicides in an intermediate space of five years (Norway in 1851–55); all the others have reached the greatest mean of suicide in the *last*, 11=73·3 per cent., or the *preceding* five years, 4=26·6 per cent. The comparison cannot be extended because the series of the sixteen countries are not all complete, but with regard to the aggregate of the actual numbers we have for the intensity of the absolute increase of suicides this descending scale: Galicia and Bückovina (taking into account the probable non-homogeneity of our figures), Austria, Prussia, Mecklenburg, France, Switzerland, Saxony, Baden, Belgium, Bavaria, Denmark, Würtemberg, Norway (until 1857, then there was a decrease), England and Wales, and finally Italy, whose series is however too short, in contrast with the others, to be used for an exact comparison.

But it is now necessary to find the relative value of the statistical data, since if the number of suicides increase every year, the population of civilized countries also goes on increasing. For this purpose we add together in a table (Table III.[1]) the numbers of some European

[1] In the original Italian edition a careful particularization followed here of the increase of suicide in all the European States and in some non-European, searching for proofs of it in the proportion per *million*

TABLE I.—*Number and Increase of Suicides in the Principal States of*

PERIODS AND YEARS	Sweden	Norway	Denmark	Finland	England and Wales	Ireland	Hanover	Hamburg	Mecklenburg
Five years. 1816-20.	122	—	—	—	—	—	—	12	22
„ 1821-25.	151	(75?)	—	—	—	—	—	45	
„ 1826-30.	177	88	—	—	—	—		—	38
„ 1831-35.	164	113	—	—	—	—	(140)	—	
„ 1836-40.	214	133	272	—	967	—		—	52
Year 1841 . .	201	148	337	—	—	—		—	—
„ 1842 . .	206	144	317	—	—	—	(140)	—	—
„ 1843 . .	209	123	301	—	—	—		—	—
„ 1844 . .	225	121	285	—	—	—	—	—	78
„ 1845 . .	227	152	290	—	—	—	—	—	69
Average 1841-45 .	212	138	306	—	—	—	—	—	(73?)
Year 1846 . .	222	146	376	—	—	—	—	—	82
„ 1847 . .	227	139	345	—	—	—	—	—	71
„ 1848 . .	244	140	305	—	—	—	183	—	—
„ 1849 . .	225	149	337	—	—	—	184	—	—
„ 1850 . .	228	174	340	—	—	—	203	—	69
Average 1846-50 .	229	150	341	—	—	—	(190)	—	(74)
Year 1851 . .	237	172	401	—	—	—	191	—	—
„ 1852 . .	337	174	426	—	—	—	218	—	66
„ 1853 . .	261	137	419	—	—	—	231	—	—
„ 1854 . .	228	146	363	—	—	—	244	—	—
„ 1855 . .	204	140	399	—	—	—	194	—	88
Average 1851-55 .	253	154	402	—	1025	—	216	—	(77?)
Year 1856 . .	193	129	426	—	1314	—	249	—	—
„ 1857 . .	212	169	427	—	1349	—	268	—	90
„ 1858 . .	216	158	457	—	1275	—	232	—	82
„ 1859 . .	196	145	451	—	1248	—	230	—	92
„ 1860 . .	238	127	468	—	1365	—	249	—	86
Average 1856-60 .	211	145	446	—	1310	—	246	—	(87)
Year 1861 . .	288	145	—	—	1347	—	256	—	77
„ 1862 . .	294	147	—	—	1317	—	—	—	80
„ 1863 . .	284	138	—	—	1315	—	—	—	—
„ 1864 . .	312	129	411	—	1340	—	—	—	—
„ 1865 . .	330	144	451	—	1392	77	—	—	—
Average 1861-65 .	301	141	(431)	—	1343	(77?)	(256?)	—	(78?)
Year 1866 . .	309	121	443	—	1329	67	—	—	—
„ 1867 . .	371	131	469	—	1316	83	—	—	—
„ 1868 . .	366	130	498	—	1508	87	—	—	—
„ 1869 . .	356	131	462	66	1588	100	—	—	—
„ 1870 . .	369	148	486	52	1554	80	—	—	—
Average 1866-70 .	354	133	472	(59?)	1459	83	—	—	90
Year 1871 . .	321	128	505	50	1495	112	—	—	—
„ 1872 . .	309	132	464	42	1514	102	—	—	—
„ 1873 . .	337	126	439	40	1518	86	—	104	—
„ 1874 . .	394	99	439	64	1592	99	286	89	—
„ 1875 . .	376	—	394	70	1601	75	—	100	—
Average 1871-75 .	347	(121)	448	53	1544	95	(286?)	(98)	93
Year 1876 . .	409	—	506	68	1770	—	—	125	—
„ 1877 . .	430	—	—	—	1699	—	—	150	—

Europe, from 1816 *to* 1877, *with the Averages of Periods of Five Years.*

Prussia	Belgium	France	Baden	Würtemberg	Bavaria	Kingdom of Saxony	German Austria	Galicia, Buckovina	Canton of Neuchâtel	Canton of Geneva	Italy
792	—	—	—	—	—	—	(393)	} 77	(9·4	—	—
975	—	—	—	—	—	—	463		8·4	—	—
1167	—	1739	—	—	—	—	(517)		9·2	} 13·5	—
1321	162	2263	—	—	—	(143)	(626)	} 150	12·2		—
1471	183	2574	—	—	—	264	523	218	20·2)	(16)	—
1630	(240	2814	—	—	—	290	—	—	—	11	—
1598	220	2866	—	—	—	318	587	214	—	13	—
1720	242	3020	—	—	—	420	588	211	—	18	—
1575	216	2973	—	—	244	335	—	—	—	12	—
1700	247)	3082	—	—	250	338	596	217	—	15	—
1642	(235)	2951	(89)	—	247	340	595	(214)	(9·8)	13·8	—
1707	(247	3102	—	220	220	373	611	257.	—	14	—
1852	251	3647	—	226	217	377	—	—	—	19	—
1649	278	3301	—	168	215	398	—	—	—	—	—
1527	275)	3583	—	159	180	328	(452)	159	—	—	—
1736	—	3596	—	152	250	390	(454)	171	—	—	—
1696	(263)	3446	—	185	218	373	(774 ?)	(196)	—	(14·5)	—
1809	165	3598	—	149	260	402	552	202	—	—	—
2073	150	3676	166	156	226	630	637	247	—	—	—
1942	161	3415	162	142	263	431	705	261	—	16	—
2198	189	3700	135	298	318	547	770	307	—	17	—
2351	166	3810	188	234	307	568	—	—	—	20	—
2075	166	3639	150	196	275	496	666	254	(20·8)	(17·7)	—
2377	216	4189	144	198	318	550	—	—	—	—	—
2038	190	3967	176	140	286	485	—	—	—	—	—
2126	194	3903	171	119	329	491	788	192	—	—	—
2146	243	3899	181	125	387	507	703	197	—	—	—
2105	222	4050	178	140	339	548	856	222	—	—	—
2152	213	4002	170	144	332	509	(799)	203	(25·4)	—	—
2185	226	4454	186	—	343	643	829	234	—	—	—
2112	214	—	—	—	345	557	941	—	—	—	—
2374	207	—	—	—	356	643	940	—	—	—	—
2203	188	4946	167	—	302	545	1081	—	—	—	709
2361	267	—	213	—	374	619	1464	—	—	—	728
2247	221	(4700?)	(189)	(175 ?)	344	601	1051	(234 ?)	(32·6)	—	(718)
2485	—	5119	199	—	410	704	1265	—	—	—	(588)
3625	—	5011	198	—	471	752	1407	—	—	—	753
3658	—	5547	212	—	453	800	1566	—	—	—	784
3544	—	5114	221	—	425	710	1375	—	—	—	633
3270	338	4157	195	—	452	657	1510	—	—	—	788
3316	(338 ?)	4989	203	(260 ?)	442	725	1424	—	—	—	739
3135	367	4490	244	—	418	653	1560	—	—	—	836
3467	356	5275	219	258	495	687	1677	—	—	—	890
3345	377	5525	216	304	447	723	1863	541	—	—	975
3490	374	5617	244	282	450	723	2151	587	—	—	1015
3278	336	5472	(235)	334	459	745	2217	611	40	—	922
3343	362	5256	231	294	436	706	1893	579	(40 ?)	—	923
4448	439	5804	—	—	522	981	2438	546	5	33	1024
4563	470	—	—	—	650	1114	2618	658	—	—	1139

TABLE II.—*Proportional Increase of Suicides in the Principal States of Europe, Year of the*

PERIODS AND YEARS	Sweden	Norway	Denmark	England and Wales	Ireland	Hanover	Mecklenburg
A. Periods of Five years:							
1816–20	**100·0**	—	—	—	—	—	**100·0**
1821–25	123·8	—	—	—	—	—	
1826–30	145·1	**100·0**	—	—	—	—	172·7
1831–35	134·4	128·4	—	—	—	**100·0**	
1836–40	175·4	151·1	**100·0**	**100·0**	—	—	236·4
1841–45	173·8	156·8	112·5	—	—	—	(331·8)
1846–50	187·8	170·4	125·3	—	—	135·7	(336·3)
1851–55	207·4	**175·0**	147·7	105·9	—	154·2	350·0
1856–60	172·9	164·8	163·9	135·6	—	175·7	400·0
1861–65	247·5	160·2	(158·4)	138·8	(100·0)	(182·8)	(359·1)
1866–70	**290·3**	151·1	**173·5**	150·8	107·8	—	409·0
1871–75	(283·2)	146·6	164·7	**157·7**	**123·4**	**204·2**	**422·7**
B. Ten years, 1866-75:							
1866	253·3	140·9	162·8	137·4	87·0	—	—
1867	304·0	148·8	172·4	136·0	107·7	—	—
1868	300·0	147·6	183·0	155·9	112·9	—	—
1869	291·8	148·8	169·8	164·2	129·8	—	—
1870	301·6	**168·2**	175·0	160·7	103·9	—	—
1871	263·1	145·4	**185·6**	154·6	**145·4**	—	—
1872	253·3	150·0	166·9	156·5	132·4	—	—
1873	268·0	143·1	161·4	157·0	111·7	—	—
1874	**322·9**	—	161·4	164·5	128·5	**204·2**	—
1875	284·4	—	144·9	**165·5**	97·4	—	—
Difference between the extremes.	222·9	75·0	85·6	65·5	45·4	(104·2	322·7

Europe during periods of Five Years, from 1816 *to* 1875, *and for every last Ten Years.*

Prussia	Belgium	France	Baden	Wiltemberg	Bavaria	Saxony	German Austria	Galicia, Buckovina	Italy
100·0	—	—	—	—	—	—	—	} **100·0**	—
123·2	—	—	—	—	—	—	**100·0**		
147·3	—	**100·0**	—	—	—	—	(111·6)	} 194·8	—
166·8	**100·0**	130·1	—	—	—	—	(135·2)		
185·7	113·0	148·0	—	—	—	**100·0**	112·9	283·1	—
207·3	(145·1)	169·7	(**100·0**)	—	**100·0**	128·8	128·5	(277·9)	—
214·1	(162·3)	199·3	—	**100·0**	88·3	141·3	167·1	(254·5)	—
262·0	102·4	209·3	168 5	105·9	111·3	187·9	143·8	329·9	—
272·5	131·4	230·1	191·0	78·1	134·4	192·9	172·5	(263·6)	—
283·7	136·4	270·2	(212·3)	—	155·4	227·6	224·7	(303·9)	**100·0**
418·6	(208·6)	286·8	228·0	—	(**178·9**)	**274·6**	307·5	—	102·8
422·0	**223·4**	**303·9**	**259·5**	**158·9**	176·5	267·4	**408·8**	(**751·9**)	**128·5**
313·7	—	294·3	212·3	—	165·9	266·6	273·2	—	(81·9)
457·8	—	288·1	222·4	—	**190·6**	281·0	303·8	—	104·8
461·8	—	318·9	238·2	—	(178·5	**303·0**	338·2	—	109·2
447·6	—	294·2	248·3	—	174·0	268·9	296·9	—	88·1
412·8	203·6	239·0	219·1	—	181·7)	249·1	326·1	—	109·7
395·8	221·0	258·2	274·1	—	169·2	247·3	336·9	—	116·4
437·7	215·0	303·0	246·0	139·5	163·9	260·2	362·2	—	123·9
422·3	**227·1**	317·1	242·6	164·3	18 ·9	273 9	402·3	702·3	135·7
440·6	225·0	**323·3**	**274·1**	152·4	182·1	273·9	464·5	761·0	**141·3**
413·9	202·4	314·6	—	**180·5**	181·7	282·1	**478·8**	**792·2**	128·4
361·8	127·1	223·3	174·1	80·5	90·6	203·0	378·8	(692·2)	41·8

TABLE III.—*Increase of Suicide with regard to the Population. The Proportions are per Million Inhabitants.*

STATES	1816–20	1821–25	1826–30	1831–35	1836–40	1841–45	1846–50	1851–55	1856–60	1861–65	1866–70	1871–75
Sweden	48	58		69	66	66	67	71	57	76	85	81
Norway	—	80		97	109	107	110	107	94	85	76	(73)
Denmark	—	—	—	—	213	232	258	272	276	288	277	258
England	—	—	—	62·8			(64?)		65	66	67	66
Ireland	—	—	—	10		—	—	—	—	(14)	15	18
Prussia	74	83	89	96	103	110	99	130	123	122	142	134
Hanover	—	—	—	83		106	109	118	131	(133)	—	140
Mecklenburg	63	—	—	—	—	135	142	—	162	—	161	167
Nassau	—	—	—	—	85		—	—	95	102	—	147
Kingdom of Saxony	—	—	—	—	158	198	199	248	245	264	297	299
Bavaria	—	—	—	—	—	55	73		80		90	91
Würtemberg	—	—	—	—	—	107	108		85	123		160
Baden	—	—	—	—	—	68	—	—	108	109	139	156
Belgium	—	—	—	39	46	62	60	(37)	55		66	68
France	—	—	54	64	76	85	97	100	110	124	135	150
Italy	—	—	—	—	—	—	—	—	—	(28)	30	35

States for every five years beginning from 1816–20. These figures give the *proportion per million*, or the mean annual number of suicides which happen in every million inhabitants without distinction of sex or age, and we have chosen this proportion because the differences between country and country are made more clear even when they are small, and because the mean numbers in a lesser group of individuals would have to be expressed in fractions.

Even in this table some exceptions appear: Norway, rather than an increase, shows from 1851–55 a marked diminution of voluntary deaths. So also, but in a slighter degree, suicide decreases in Denmark from 1866–70, and

inhabitants, for different and longer or shorter periods. But for this English version the author has limited himself to a summary of the results of his long and patient research.

on the other side the numbers in England and Wales during the last twenty-five years, if they do not decrease, they at least show no noteworthy tendency to rise. The exception of Norway is owing perhaps to the severe laws issued in the last twenty years against drunkenness, and to the Government restrictions placed on the sale and consumption of alcohol, by which means a powerful cause of death by suicide has been removed. The diminution in Denmark is too recent to assist in overthrowing the law of increase of suicide which is based on the observations of a long series of years and of nearly the whole of Europe. Finally, the English statistics, if they do not show the rapid and alarming growth of voluntary deaths which, for example, the French, Austrian, and German statistics reveal, lead to a wonderful confirmation of another important law relative to the annual returns of the numbers of suicide; that is to say, the regularity with which every civilized country pays its yearly tribute to this fatal plague of our age.

A celebrated passage of Montesquieu sufficed to give to England the name of the classic land of suicide, and Young, in his 'Night Thoughts,' confirmed this title. But statistics, putting the continental countries of Europe in the first rank, has destroyed this idea, but not the historical fact mentioned by the author of the 'Esprit des lois,' that inclination to suicide had been for a long time common amongst the English. Suicide has become more frequent in England since she put herself at the head of European civilization by the great conquest of political and individual liberty, and gathered in her hand the threads of the commerce of the world. But in the meanwhile the frequency and increase of suicide in England are not so grave as was supposed. Perhaps the suicidal tendency having arrived at a certain stage of its progress pauses there. This

might be supposed, not so much from the before mentioned diminution in Norway and Denmark, as by the fact that England, once diseased with true suicidal mania, now finds herself at the lower end of the scale of suicide. Some people have exaggerated this cessation of increase of suicide in the United Kingdom so far as to deny its general laws of increase; but the observation of facts and the numerous reasons alleged by Legoyt, and Oettingen show too well that in England also suicide always maintains a high degree of elevation, and if it does not show a great increase, it has not up to the present time diminished.

The English proportional numbers offer, indeed, a surprising constancy, so that Buckle availed himself of it to found the bases of his brilliant doctrine of 'general laws' which has finally given to history access to the explanation of the origin and developement of civilization. In the actual figures (Tables I. and II.) is to be observed a progressive rise even in the last twenty years; taking the five years' averages we find the real progression to be: 967, 1,025, 1,302, 1,331, 1,459, and 1,525, whilst the relative progression is brought out more distinctly by a comparison of the first and last, which stand respectively in the report as 100 to 164. In the statistical series of English suicides variations are to be remarked, for example in 1839, when England and Wales had only 943, 115 less than the preceding year; but on the whole this regularity exists, and with respect to long periods the law of increase also exists. The periodicals which take most interest in bringing forward the benefits of English civilization ('Pall Mall Gazette' [1868], 'British Medical Journal,' 'Journal of Mental Science,' 'Times,' 'Quarterly Review') confess this painful truth. And it is to be noticed that the statistics of suicide in England are not conducted with too great

exactitude; violent deaths are there registered differently from other countries, and many suicides figure in the category of 'mental alienation.' This at least is the opinion of Sir George Burrowes, who some years ago declared that not a few suicides eluded public enquiry, either through the carelessness of the authorities or by the custom of burying the drowned without enquiring whether the death was accidental or voluntary.

In the ten years 1839–48 the actual numbers in England and Wales show between them the following proportions, taking the numbers for 1848 = 100:—96, 102, 139, 134, 112, 145, 144, 162, 182, **100** respectively. Certainly there was an enormous diminution of suicides in 1848, but we shall elsewhere see the reason of it; in the meanwhile it is useful to note that in that year all the statistics of Europe showed an analogous decrease. Farr, the director of English statistics, calculated in 1840, out of a population of 15,900,000 in England and Wales, the annual average proportion of one suicide in 15,900 individuals, or **62·8** per million. In the succeeding years there were oscillating and sometimes lower proportions; but in considering the whole period 1836–76 the diminution was not on the whole maintained, although there was a wonderful fixedness, as Dr. Radcliffe has said. This writer, in a paper read at the Social Science Congress of 1862 ('Social Science Review,' and 'Dublin Quarterly Journal of Medical Science,' May 1863), comparing the three years 1838–40 with the five years 1852–56, believes himself authorized to deny the increase, but likewise to admit that the suicidal mania remains nearly stationary. In fact, the three years gave the annual average proportion of 62 per million, and the five years gave a slightly lower number, that is, 58·7; but the comparison, owing to the brevity of the periods and the scarcity of the

figures, does not possess all the value ascribed to it by Radcliffe. In truth, we do not possess the entire series of the remarkable statistical documents to which Farr has appended his name as to a model work; thus we ought to confess that perhaps the data we have gathered from Wagner, David, Oettingen, Legoyt, and Farr are not homogeneous; but in the meantime confronting them with each other, that regularity of which we have spoken may be observed.

Periods or Years	Proportion per million of inhabitants	Periods or Years	Proportion per million of inhabitants
1830–40 (Farr)	62·8	1861 (Farr)	68
1838–40 (Radcliffe)	62	1862	65
1845–55 (Wagner)	62·0	1863	66
1840–56 (David)	66·0	1864	64
1856–60 (The Author)	65·3	1865	67
1856–60 (Haushofer)	65·0	1866	64
1856–63 (Oettingen)	65·0	1867	62
1858–63 (*Reg. Gen.*)	67·0	1868	70
1856–65 (Legoyt)	69·0	1869	73
1861–65 (The Author)	65·8	1870	70
1866–70 (*id.*)	67·3	1871	66
1871–74 (*id.*)	67·0	1872	66
1875–76 (*id.*)	70·0	1873	65
1858 (Farr)	66	1874	67
1859	64	1875	67
1860	70	1876	73

Further if the returns of the number of suicides in England show this *regularity of fixedness*, other countries, on the contrary, present an admirable *regularity in progression*. Among so many statistics that we could cite we shall choose those of France, as those which from the number and value of their records, from their commencement by Quetelet down to Bertillon, are now the best known and most trusted. Whatever period of years we take for examination the result is always the same; for example, here is a proof of it in the numbers of the period 1827–52.

Years	Proportion		Increase per cent.	Years	Proportion		Increase per cent.
	1 on inhabitants	Per million			1 on inhabitants	Per million	
1827	20,740	48·0	100	1840	12,089	82·7	179
1828		54·0	114	1841	12,128	82·4	183
1829	18,517	58·0	124	1842	11,839	84·4	186
1830		54·0	114	1843	11,301	88·4	196
1831		63·0	135	1844	11,907	84·0	193
1832	15,593	61·2	139	1845	11,478	87·1	200
1833		61·8	128	1846	11,412	88·7	201
1834	15,399	64·9	148	1847	9,707	103·7	236
1835	13,882	72·0	149	1848	10,724	93·5	214
1836	14,207	70·4	152	1849	9,880	100·9	232
1837	13,683	73·0	159	1850	9,544	100·8	233
1838	12,876	78·4	168	1851	9,525	100·6	233
1839	12,102	82·6	178	1852	9,340	102·0	238

In these years we have only two great exceptions to the law of continual increase, namely, 1830 and 1847; the first shows a diminution, the second a large increase on the proportion of the previous year; but may not such alternations be explained by the political agitation which gave rise in the following year to the commotions of 1831 and the revolution of 1848? It is certain, however, that such alternations are almost insignificant when the uniform progression of the whole period is considered.

We will give two other proofs of this regularity, one from a period in the Saxon statistics, the other from the Italian. In the last thirty-two years, that is from 1846 to 1877, the Saxon kingdom, which amongst all the European States has the greatest number of suicides, has undergone this uniform annual increase of voluntary deaths:

Years	Proportion per million of inhabitants	Years	Proportion per million of inhabitants
1836–40	158	1850	204
1841–45	198	1851	207
1846	(196)	1852	268
1847	204	1853	215
1848	213	1854	271
1849	174	1855	279

Years	Proportion per million of inhabitants	Years	Proportion per million of inhabitants
1856	267	1867	312
1857	233	1868	327
1858	233	1869	287
1859	237	1870	262
1860	232	1871	257
1861	291	1872	266
1862	248	1873	274
1863	282	1874	269
1864	235	1875	272
1865	263	1876	352
1866	296	1877	391

The period of Italian statistics is as follows:

Proportion of Suicides.

Years	Per million of inhabitants	Per 1000 deaths	Per 1000 violent deaths
1864	29·2	—	—
1865	31·1	1·1	99·2
1866	26·2	0·9	82·8
1867	31·1	0·9	106·6
1868	31·0	1·0	109·6
1869	25·0	0·9	92·8
1870	30·0	1·0	101·5
1871	31·0	1·1	115·7
1872	33·0	1·1	127·4
1873	36·0	1·2	139·3
1874	37·0	1·2	152·9
1875	34·0	1·1	136·3
1876	36·0	1·3	153·8
1877	40·6	1·4	171·0

We might also bring forward proofs of the increase of suicide for many other States and countries not shown in our Tables I. II. and III., but the limits imposed on this work forbid our reproducing them. We have not always been able to obtain the figures for a continuous series of years; thus for several States all we could gather were the averages of detached and often distant intervals; but any way, with the exception of the already mentioned Norway and Denmark, and omitting the city of Frankfort-

on-Main, the increase of suicide is general; and besides the States named in Table III. we may include also Russia, Finland, Holland, Schleswig-Holstein, the free cities of Hamburg, Bremen, and Lübeck, Oldenburg, Hesse-Cassel, Switzerland, Cisleithan Austria, Hungary, and Transylvania, Spain, the United States of America, the English Australian Colonies, and Algeria.[1]

Although the data we have collected on the most civilized countries do not cover the same epochs and are sometimes very meagre, nevertheless it seems possible to discover from them a law on the regularity and increase of suicide; namely, that '*in the aggregate of the civilized States of Europe and America, the frequency of suicide shows a growing and uniform increase, so that generally voluntary death since the beginning of the century has increased and goes on increasing more rapidly than the geometrical augmentation of the population and of the general mortality.*'

Some have wished to calculate the average quota of the annual increase for every State, but it is clear that comparison has only a relative value through the difference of the series of observations, some of which, as those of Sweden, extend through more than a century; others, on the contrary, as of Italy, through a few years. Any way, even under this aspect, the progressive increment of suicides presents regularity and uniformity, notwithstanding that in all statistics it never surpasses 5 per cent., remaining in the generality of cases between 1 and 3 per cent. And the more capable of comparison the series of observations are for homogeneity and length of time, the more exact is the analogy between the figures that establish this. The following Table (IV.) contains the

[1] For all these countries the original Italian edition has special paragraphs from pp. 58–94.

TABLE IV.—*Increase of Suicides in the Registers of the States confronted with the Increase of the Population.*

COUNTRIES	Duration of the series of observations in the following years	Proportion per million of inhabitants		Increase of the annual geometrical average of suicides p. 100		Increase of the annual geometrical average of the population p. 100	
		in the first five of the period	in the last five of the period	Wagner	Morselli	1860–60	1861–76
Sweden	1750–1875	12	81	1·4	1·531	0·82	0·81
Norway	1826–73	80	75	(0·53)	–0·122	0·99	0·79
Denmark	1836–76	213	258	1·9	0·371	0·93	1·01
Russia	1819–75	17·6	29	—	0·880	(1·45	(0·81)
Finland	1869–76	(29·5)	(30·8)	—	0·771	1·22	0·62
England–Wales	1830–76	62·8	66·3	0·25	0·117	1·32	1·17
Netherlands	1869–72	—	35·5	—	(10·66)	0·71	0·87
Prussia	1816–75	70·2	133·1	1·6	1·075	1·21	0·98
Schleswig-Holstein	1856–74	209	(240)	—	0·695		
Mecklenburg	1816–75	63	167	3·7	1·872		
Hamburg	1816–77	177	301·4	—	1·067	1·16	0·84
Oldenburg	1855–70	156	198	—	1·601		
Electoral Hesse	1856–71	134	(160)	—	1·116		
Nassau	1836–71	85	(160)	—	1·823		
Hanover	1825–74	83	(140)	3·6	1·046	0·47	0·27
Frankfort-a.-M.	1852–77	354	344	—	–0·111	—	—
Kingdom of Saxony	1836–77	150	311·4	3·0	1·754	1·41	1·55
Bavaria	1841–76	55	90·5	1·1	1·392	0·55	0·48
Würtemberg	1841–76	107	162·4	—	1·159	0·34	0·64
Baden	1841–75	68	156·6	—	2·411	0·73	0·68
Belgium	1831–75	39	68·5	6·3	1·259	0·76	0·75
France	1826–75	54	150	3·3	2·064	0·48	0·07
Cant. Geneva	1825–76	250	(321)	—	(0·501)	—	—
Cant. Neuchâtel	1801–76	—	486	—	1·238*	—	—
German Austria	1819–77	32	211·7	2·7	2·829		
Styria	„	20	90	—	2·818		
Carinthia-Carniola	„	12	71	—	3·296		
Dalmatia	1819–72	16	14	—	–0·478		
Tyrol	1819–77	17	77	—	2·829	0·64	0·78
Bohemia	„	29	160	—	2·936		
Moravia-Silesia	„	29	155	—	2·881		
Galicia-Buckovina	„	79	98	3·7	0·365		
Hungary	1851–65	30	(52)	—	3·734		
Transylvania	1839–65	22	(88)	4·6	5·266	0·27	0·51
Military frontiers	1839–65	28	(31)	0·52	0·377		
Trieste, Istria	1819–77	23	75	—	2·023	0·64	0·78
Kingdom of Italy	1864–77	30·8	36·8	—	1·279	0·61	0·70
Piedmont	1824–77	(12)	39·0	—	2·206	—	0·86
Lombardy	1819–77	12·4	50·2	0·81	2·391	—	0·73
Venetia	1819–77	18·8	51·8	1·1	1·734	—	0·94
Spain	1856–70	14·5	17	—	1·050	0·66	0·60
United States	1856–70	32	35	—	0·598	—	—
Massachusetts	1859–75	71·4	82·0	—	0·803	—	—
Philadelphia	1827–75	(84)	(85)	—	0·024	—	—
South Australia	1867–76	75·5	80·7	—	0·667	—	—

* The increase in the Canton of Neuchâtel is computed on the proportion of suicides in the general mortality. It should be noticed that the increase in Finland is from the first to the last three years; in the Netherlands from the first to the last year.

comparison of the various European States with respect to the annual geometrical average, made by long patient calculations, on the same algebraical formula by which that of the population is determined. This formula is $x=100\left(\sqrt[n]{\frac{a'}{a}}-1\right)$, in which n is the number of the years of the period of observation, a' the number of the suicides in the last year, and a that of the first year of this period (Bodio). The periods taken for examination are different, and the interval between the two extreme years is not uniform; for Sweden it extends from the *maximum* of 125 years, to the *minimum* of four for the Netherlands, but precisely on that account the regularity of the results is the more remarkable.

Oettingen and Wagner were the first to recognize the national specificness of the number which indicates the annual percentage of increase of suicides, and in truth this will be even better proved by the numbers of the forty-five countries in our table than by the few possessed by the illustrious theologian of Dorpat. Excluding, indeed, the Netherlands, because the augmentation derived from four years only has no comparative value, three countries alone give a diminution of suicides, Norway, Dalmatia, and the city of Frankfort-on-Main. But in all the other States there has been an increased percentage, and almost always greater than that of the population. From these forty-two countries various groups can be formed according to the affinity of race, the geographical position, or the political conditions, and it is to be noted that each group has a special rate of increase; for example, in the northern group (Russia, Finland, Denmark, Schleswig-Holstein, England) it is always below 1 per cent. In the German group (Prussia, Mecklenburg, Saxony, Hanover, Bavaria, &c.) it is never lower than 1, and it varies in all

under 2 per cent., exceeding it only once in the case of Baden. In the German group of the Austrian-Hungarian countries the number is always high, above 2 per cent.; in the Slav group (military frontiers, Galicia and Buckovina) the return is the same as in the north, in Russia and Finland; on the contrary, higher than all the others is the number for the Magyar group (Hungary, Transylvania). Finally, the three American States are alike in this respect. The three regions of northern Italy (Piedmont, Lombardy, Venetia) present the same affinity as is offered by Spain and the Italian kingdom.

Considering now the geometrical augmentation of the population, it will be found that, in the Southern States especially, it remains below the geometrical augmentation of voluntary deaths; in the Central States, on the contrary, though the figures more nearly approach, yet the suicides still predominate; lastly, in the Northern States the increase of suicides is equal to and sometimes even exceeded (as in Denmark, Finland, and England) by that of the increase of inhabitants. This consideration diminishes the specific value of the increased percentage of suicides; the true specificness in short consists in this, *that the proportion on the population is maintained regularly in each particular country from year to year, notwithstanding the progressive augmentation which appears in long periods.*

But this regularity, to become apparent, ought to be studied in long periods and in large series, because the variations become greater as the number of observations are fewer. Thus, if the returns of the numbers of the suicides in the compartments or divisions of any country whatever are studied, no regularity perhaps will be found from one year to another. But at the same time it is a remarkable fact that the variations are greater in those

countries which give absolutely smaller series or numbers, whilst, on the other hand, the exceptions and differences do not appear so great in the divisions with high numbers and in the whole State. It is natural that the shortest period of a limited series and too minute a series will give more variations than will a prolonged period and a full series, because thus the accidental differences produced by individual variations are escaped, and a general result is obtained.

This statistical law applies to moral facts or voluntary human actions, such as suicide, homicide, marriage, as it does also to unconscious phenomena of the social forces (demodinamica), such as births, illegitimate births, general mortality, and accidental deaths. The importance of this result of social science has already been proved by others. Wagner and his school have perhaps exaggerated its importance, but the fact cannot be denied; indeed, according to Buckle it is necessary that it should happen in this particular way, otherwise the history of human progress and tendency towards perfection would ever remain a mere artifice of rhetoric or dialectics. That so-called voluntary actions are regular and uniform, like the phenomena of biology of populations, has been sufficiently proved by many figures shown in the previous pages. We wished therefore to make a more direct comparison between the regularity of suicides and that of the other factors of the social forces. Examining then the data relative to suicides, homicides, marriages, births, and ordinary and accidental deaths of the last ten years in *proportion to the inhabitants*, it is indeed possible to demonstrate that the variations of the former scarcely differ from those of the others. The figures in the following table show the interval between the larger and smaller numbers of the proportions, the smallest being taken at 100. For the

suicides, homicides, and accidental deaths the proportions were *on the million of inhabitants*; for the marriages, births, and ordinary deaths, *on the* 1,000 *inhabitants*; for illegitimate births, *on the* 1,000 *children*. All the periods in the table are not equal, because we thought well to eliminate the years of war, or because we did not possess the same number of data for all the racial factors.

From these figures it will be perceived that under the

	Difference between the extremes, the smallest number being = 100						
	Suicides	Homicides	Marriages	Births	Illegitimate births	Deaths	Accidental deaths
England (1867-76) . . .	112·2	150·0	111·4	105·1	125·8	109·0	107·3
Italy (1867-76) . . .	154·1	194·3	125·3	111·4	127·2	123·4	113·4
Cisleithan Austria (1867-76) .	166·1	132·1	120·9	107·0	121·1	136·1	118·3
Sweden (1867-76) . . .	127·4	161·1	132·9	113·4	111·2	126·8	127·0
France (1865-69, 1872-76) .	119·3	—	122·7	104·3	109·7	114·6	—
Prussia (1865-69, 1872-76) .	125·6	150·0	119·7	111·1	121·5	112·5	111·3
Bavaria (1868-76) . . .	124·0	156·0	154·4	116·7	167·5	107·8	128·2
Belgium (1870-76) . . .	132·2	153·0	113·0	105·1	104·1	139·0	108·1
Norway (1865-73) . . .	119·8	200·0	127·8	111·1	114·0	116·6	130·0

head of suicide the greatest variability occurs only once, and then it was in Austria; but if we reflect on the enormous increase of the last four years (see Table I.) we shall also find the explanation of this great variation. In the other States, if the differences in the proportional numbers of suicides have sometimes surpassed the variations of the social factors (Italy, France, and Prussia), they have more often shown themselves to be less (in England, Bavaria, Belgium, and Norway), or even equal (Sweden). The demographical phenomenon which shows less variation is that of *births*, with which suicide cannot stand for comparison; but it is remarkable that the illegitimate births, the general mortality, and accidental deaths, over which human will has no power, have often offered *greater* variations than suicide, homicide, and marriage, which are

supposed to be voluntary actions. The illegitimate births have varied more than suicide in England and Wales and Bavaria, and very nearly in an equal degree in Prussia, France, and Norway. The general mortality has varied more even than the voluntary deaths in Belgium, and has presented almost the same variations in Sweden, France, Norway, and England and Wales. Most important then for our assertion is the fact that deaths through misfortune or unforeseen accidents have offered from year to year greater divergences than suicide in Norway and Bavaria, and nearly equal divergences in Sweden and England.

All this goes to prove that if social actions dependent on human will vary proportionally from year to year, their variations do not differ from those observed in phenomena either of a physiological or organic nature. The laws of social life are not sufficiently known to us to enable us to attribute the variations in suicide, marriage, and homicide to one cause, such as human liberty or free-will, different and opposite to those natural forces on which we make births, deaths, and accidents to depend. We have no positive ground for giving different interpretations to similar phenomena, and for asserting, with Rümelin and Rhenisch, that in nature unity is *typical*, whilst in human society it is *individual*, and that merely because variations appear in psychical facts. We may rest assured that the deeper our scientific knowledge on social phenomena becomes, so much the more will it tend to strengthen the modern idea of the unity of forces as well in the objective nature as in the subjective activity of the human mind.

CHAPTER II.

THE COSMICO-NATURAL INFLUENCES WHICH ACT ON SUICIDE.

THE general returns of suicide are not equal in every country, because each State has a specific degree of tendency to suicide, as is also the case with regard to criminality, marriage, to the geometrical growth of the population, and to all the factors of social life. The greater part of this particular tendency is due to race, religion, and culture, but there are other influences, such as climate, the seasons, atmospheric changes which, being excited by external nature, operate on what are called voluntary actions. Statistics unfortunately cannot furnish us with complete knowledge as to the relations between moral actions and external phenomena, but such as we possess are already sufficient to prove to us the dependence of man on the great physical laws of nature.

§ 1. *Climate.*

The North of Europe has for a long time been acknowledged as the classic ground of suicide, and Tacitus and Suetonius have expressed their astonishment at the contempt in which the Germanic, Celtic, and Breton tribes held life. In less ancient times also, the Northern

climate has appeared to some as the most favourable for developing the inclination towards suicide. Montesquieu nevertheless exaggerated the influence of climates when, attributing to England the pre-eminence in voluntary deaths, he charged the dark, cold, damp climate with being its cause.

Whenever averages of the various States are collated without prejudice a decided and absolute influence of climate is not really perceived. Countries situated under equal climatic conditions present unequal numbers, and, on the contrary, others in distant latitudes give the very same proportions. Nevertheless, looking at the whole of Europe a prime general fact is made evident: *the South of Europe (Italy, Spain and Portugal) gives the minimum proportion, while that seems to rise by degrees as the centre is approached, which is at 50° of latitude.*

Climatic influence would appear to be confirmed at least by those parts of Europe under 55° of latitude; but in the North of Europe, about 57° of latitude, suicide is less frequent. On the other hand, this comparison of the different constitutions, culture, race, and religion of these States do not admit of precise deductions. The only well-assured fact is the predominance of suicides in the centre of Europe comprised between 47–57° of latitude and 20–40° of longitude. On this area of about 942,000 square kilomètres are found the people who of all others in the civilized world manifest the greatest inclination to suicide. In the South-west or North-east of Europe, on the contrary, are those countries where this inclination is lower.

But the separation of countries according to different latitudes gives no conclusion as to their true climatic condition, inasmuch as the climate does not depend on

the greater or lesser distance from the equator, but rather on the aggregate of atmospheric phenomena which may exercise influence on organized beings, and which is chiefly due to heat and moisture. In the division proposed by Meyer, the warm-temperate zone extends from 34° to 45°, the cold-temperate from 45° to 58°, the subarctic from 58° to 66°, and the arctic from 66° to 72°; whence it appears that the zone in which are situated the countries where suicide is most frequent is the *temperate*, as might be anticipated from the historical fact of the favourable developement of ancient and modern civilization in the regions farthest from the extreme climates.

Countries may thus be grouped according to the annual average temperature, summer or winter, to see if under the same isothermal, isochimenal, or isotheral line there would be a closer affinity in the frequency of suicide.

We find the regions less visited by suicide on the isothermal line of + 17° 5 C. Spain (17) and Portugal (12·7) stand at the bottom of the scale of European countries; Corsica (29) diverges, as we shall see, from the rest of France, and approaches more nearly to Italy; Calabria (8·1); Sardinia (13·3); Sicily (19·0), and the group including the Basilicata, Puglia, the Abruzzi, and Campania (15 to 21 in the million) are at the bottom of the scale for the Italian regions. Of Greece we know nothing accurately, but we may suppose that this little kingdom also stands amongst the more fortunate with regard to violent deaths.

The isothermal line of + 15° C. passes over the South of France and the North of Italy; the latter has an annual average of suicide between 40 in Venetia, and 64 in the Emilia, per million; and for the South of France the average rose in 1872–76 to about 90. There

exists then this analogy between the South of France and the North of Italy, that their averages are under 100.

Under the isothermal line of +12·5° C. stand Central France, Switzerland, Bavaria, and the southern regions of the Austro-Hungarian empire. Here the general averages offer some differences; under the same isothermal conditions we find, indeed, Brittany with 74 per million; Anjou-Touraine with 154, Berry-Bourbonnais with 106, Franche-Comté and Burgundy with 152, Switzerland with 206, Bavaria with 90, and Tyrol, Styria, Carinthia-Carniola, Hungary, and Transylvania with the respective averages of 77, 90, 71, 52, and 88. It may be said, therefore, that Switzerland alone exceeds greatly the other countries, all these giving averages between 50 and 100, or having between them a mean analogy in the specific proportion of the suicidal tendency.

But the divergences are greater under the isothermal line +10° C. Under this line we find in the United States of America 35 per million; in Ireland 16, in England 67, the North of Belgium 55, the Netherlands 35, Hanover 140, Rhine-Prussia and Westphalia 70, Prussian Saxony 228, Kingdom of Saxony 310, Bohemia 160, Moravia-Silesia 155, and finally Galicia and Buckovina with the proportion of 98. Any approximation between these countries is impossible, the more so that they are most diverse in race, habits, and religion. It is noteworthy that Ireland presents so low a number of voluntary deaths; but it must be remembered that the climate of Ireland is much softened by the favourable influence exercised by the Gulf Stream; so that with its winter temperature of +5° C., it stands on the same isochimenal line as Brittany, the South of France, the northern Apennine region of Italy and Dalmatia; countries which, owing to circumstances, contribute only slightly

to suicide. It is however remarkable that Saxony, Bohemia, Central Prussia, Schleswig-Holstein, and Denmark, which present a heavy proportion of violent deaths, are on the isochimenal line of 0° C. Above this line suicide becomes less frequent the nearer the sub-arctic region is approached. Under the isochimenal line of —5° C. is found Gothia or South Sweden with the high average of 100, and Norway with that of 75; and under the isochimenal line of —10° C., Russia with 29 per million, Finland 31, and North Sweden or Norrland with a proportion of 21.

The relation between the annual average temperature and the number of suicides is therefore shown in a general way only, inasmuch as all those countries with a greater tendency towards voluntary death are found between the isothermal line of +12°½ centigrade, and that of +7° 5 centigrade. These two lines limit, so to say, the area of suicidal predilection, which corresponds to two-thirds, the central and upper regions of the north temperate zone. The line of suicide then crosses the European continent from the north-east to the south-west, and although the influence of climate cannot be detached from the social and ethnical elements, nevertheless it is in all probability the most powerful of them all, inasmuch as extreme climates render less intense man's propensity for taking away his life. There are also farther proofs with regard to the geographical distribution of suicide in the various provinces of each country.

One important fact, indeed, which we find in the geographical distribution of suicide is this: *among the provinces of the Northern or Southern European States, those which present a higher average are always the nearest to the area of predilection as above defined.* In the Southern States these are the Northern provinces, and

a special example of this is afforded by Italy, where, on inspecting the aggregate of figures, we discover the highest averages in the upper region, the lowest in the southern. Taking the divisions according to their geographical position, for the North (from Piedmont to Rome, prov.) there will be found the proportion of 40·6 per million, while on the contrary for those of the South (from the Abruzzi and Molissa to Sardinia) there is the lowest proportion of 15·7. Their averages per million are as follow:

TABLE V.—*Distribution of Suicides in Italy according to the Divisions during the period* 1864-76.

DIVISIONS	Average population	Number of annual suicides	On the million of inhabitants
Piedmont (1-4)	2,923,639	104·1	35·60
Lombardy (5-12)	3,451,579	139·6	40·44
Venetia (13-20)	2,587,337	83·0	32·07
Emilia (21-28)	2,115,164	133·2	62·97
Liguria (28-30)	835,796	39·6	47·37
Tuscany (31-38)	2,118,106	86·1	40·64
Marches (39-42)	921,858	31·9	34·60
Umbria (43)	546,610	16·8	30·73
Rome, prov. (44)	838,279	35·0	41·75
Abruzzi (45-48)	1,274,894	20·1	15·76
Campania (49-53)	2,117,136	45·9	21·68
Puglia (51-56)	1,409,307	23·0	16·31
Basilicata (57)	512,212	7·7	15·03
Calabria (58-60)	1,202,975	9·8	8·14
Sicily (61-67)	2,579,337	47·8	18·52
Sardinia (68-69)	627,413	8·4	13·38

The numbers show a regular diminution of suicide as we remove gradually from the North. This divergence certainly does not depend on the climate alone; ethnological and social influences will also bear their share in it, as we shall see in chapters to come. We do not wish to interpret this statistical fact as if it were a simple problem of physical geography which had to be resolved, but neither do we deny the influence of climate and of geographical conditions, although we only dimly perceive it without being able to reduce it to figures.

The same divergence between the North and South of France has been observed, and Guerry was the first to point it out. Dividing that country into five regions, 'north, central, east, west, and south (omitting Corsica),' he obtained for the period 1827–30 a descending scale, at the head of which stood the North with Picardy, Artois, Normandy, Lorraine, and the Isle of France; and lastly came the Southern region, that is to say, Guienne, Gascony, Languedoc, Roussillon, and Corsica. Other French statisticians, as Brierre de Boismont, Lisle, Legoyt, Blanc, and foreigners such as Wagner, Oettingen, and Frantz, have confirmed the observation of Guerry by later periods, so that it has now become one of the most assured facts of the comparative statistics of suicide.

The higher numbers of the North depend certainly in great measure on the influence of Paris, around which there is a zone of nine departments of the Isle of France, Orleannais, and Champagne, where the proportion of voluntary deaths is highest, not only placing them on the same level with the countries of pure German race, but even surpassing them in numbers. Therefore it is sufficient to observe the numbers of the eighty-six departments to be convinced that this northern French zone unites itself with the central European zone pointed out by us, in the same way that to the influence of the great city are united the two other not less efficacious influences of the Germanizing of the people and the reformation of religious opinions.

We give the absolute and proportional numbers of the period 1872–76 for the eighty-six departments, remarking that the average on the population was computed on the census of 1872.

TABLE VI.—*Distribution of Suicides in France during the period* 1872-76.

DEPARTMENTS	Annual average	On the million	DEPARTMENTS	Annual average	On the million
1. Nord	159·2	109·9	44. Loire	39·0	70·8
2. Pas-de-Calais	111·8	146·8	45. Haute-Vienne	32·6	101·1
3. Somme	122·2	219·3	46. Corrèze	21·0	69·3
4. Seine-Inférieure	190·8	240·2	47. Cantal	14·2	61·2
5. Oise	161·6	407·2	48. Haute-Loire	14·2	45·9
6. Aisne	164·6	297·9	49. Finisterre	69·6	108·2
7. Ardennes	53·4	166·7	50. Côtes-du-Nord	32·8	52·7
8. Meuse	60·5	212·8	51. Morbihan	31·8	64·8
9. Meurthe-et-Moselle	56·6	155·0	52. Ille-et-Vilaine	40·8	69·2
10. Marne	147·0	380·6	53. Mayenne	29·0	82·7
11. Seine-et-Marne	131·0	383·5	54. Loire-Inférieure	45·8	76·0
12. Seine	888·8	400·3	55. Maine-et-Loire	69·8	134·6
13. Seine-et-Oise	225·6	388·8	56. Deux-Sèvres	36·8	111·0
14. Eure	96·4	255·1	57. Vendée	26·6	66·2
15. Calvados	67·0	147·5	58. Vienne	30·0	93·5
16. Orne	38·6	96·9	59. Charente	60·4	164·3
17. La Manche	43·4	84·5	60. Charente-Inférieure	74·6	160·2
18. Vosges	49·6	126·2	61. Dordogne	55·4	115·3
19. Haute-Marne	35·6	141·7	62. Gironde	86·4	122·5
20. Aube	72·8	284·8	63. Lot-et-Garonne	27·0	84·5
21. Côte-d'Or	70·2	187·4	64. Landes	25·0	83·1
22. Haute-Saône	35·8	118·1	65. Bassos-Pyrénées	27·4	64·2
23. Doubs	33·2	113·9	66. Gers	17·6	61·8
24. Jura	35·4	123·0	67. Lot	16·6	58·9
25. Ain	46·6	128·2	68. Tarn-et-Garonne	16·4	74·0
26. Saône-et-Loire	86·6	144·7	69. Aveyron	16·0	39·7
27. Rhône	111·8	166·8	70. Lozère	7·4	54·6
28. Isère	56·4	97·9	71. Ardèche	32·2	84·6
29. Drôme	52·0	162·2	72. Gard	48·2	114·7
30. Hautes-Alpes	11·8	99·2	73. Vaucluse	55·0	208·7
31. Basses-Alpes	27·2	195·2	74. Bouches-du-Rhône	112·6	202·9
32. Yonne	79·2	217·7	75. Var	65·0	221·2
33. Loiret	73·0	206·7	76. Hérault	33·6	78·1
34. Eure-et-Loir	77·4	273·5	77. Tarn	19·4	55·0
35. Sarthe	69·4	155·8	78. Aude	21·4	74·8
36. Loir-et-Cher	50·0	186·0	79. Haute-Garonne	31·6	65·9
37. Indre	28·8	103·6	80. Hautes-Pyrénées	9·4	39·9
38. Indre-et-Loire	67·6	213·2	81. Arriège	7·6	30·8
39. Cher	35·2	104·9	82. Pyrénées-Orientales	14·6	76·0
40. Nièvre	32·0	94·1	83. Haute-Savoie	16·2	59·3
41. Allier	32·8	83·9	84. Basse-Savoie	17·8	66·4
42. Creuse	19·0	69·1	85. Alpes-Maritimes	26·4	132·6
43. Puy-de-Dôme	48·8	86·1	86. Corsica	7·4	28·6

It is easy to perceive that in this table the exceptions to the law are much fewer than would be supposed from the number and diversity of the departments. The same result is obtained by dividing France into provinces, of which the Northern always have a preponderance over the Southern excepting in Provence, where Marseilles takes

the place of Paris as the centre of the spread of suicide. We give the average in the million for two different periods.[1]

Provinces	Wagner 1856–60	Morselli 1872–76	Provinces	Wagner 1856–60	Morselli 1872–76
Isle of France—Orleans	298	330·6	Nice	77	132·6
Champagne	177	237·3	Berry-Bourbonnais	75	106·2
Flanders-Picardy	148	236·2	Guienne	64	84·2
Provence	123	185·4	Brittany	57	74·2
Normandy	119	164·8	Languedoc, East	57	75·6
Burg. Franche-Comté	103	152·0	Gascony	56	64·6
Alsace-Lorraine	97	140·6	Savoy	50	62·8
Anjou-Touraine	95	154·4	Limosin-Auvergne	48	77·3
Poitou-Angoulême	90	119·0	Languedoc-Roussillon	42	60·5
Lyonnais-Dauphiny	86	125·2	Corsica	14	28·6

But this geographical distinction of suicide repeats itself in other countries of central Europe. We will first cite Belgium, the northern half of which gives an annual average of suicide (54·3) higher than that of the south (35·8).

In Switzerland, although on account of its geological and moral conditions it lends itself but slightly to an examination on this matter, there are however southern and Alpine Cantons which give the minimum numbers; whilst those which are more to the north give a very high average.

[1] The Provinces correspond to the following Departments, numbered according to Table VI. :—Isle of France and Orleans, 34, 33, 11, 12, 13; Champagne, 7, 20, 8, 10, 19; Flanders-Picardy, 1, 2, 3, 5, 6; Provence, 30, 31, 74, 73, 75; Normandy, 14, 15, 4, 16, 17; Burg.-Franche-Comté, 21, 22, 23, 24, 32; Anjou-Touraine, 38, 36, 53, 55, 35; Poitou-Angoulême, 59, 60, 56, 57, 58; Lyonnais-Dauphiny, 25, 27, 28, 29, 44; Nice, 85; Berry-Bourbon., 37, 39, 41, 26, 40; Guienne, 69, 61, 62, 63, 67; Brittany, 49, 50, 51, 52, 54; Languedoc, 71, 72, 76, 48, 70; Gascony, 68, 65, 66, 64, 80; Savoy, 83, 84; Limosin-Auvergne, 46, 47, 42, 43, 45; Languedoc-Rouss., 78, 79, 81, 77, 82; Alsace-Lorraine (residue from the cession, 1871), 9, 18. We find no statistics for the territory of Belfort.

Austria-Hungary also shows the same increase of suicide in the Northern countries:—

Southern Countries	Annual average	On the million	Northern Countries	Annual average	On the million
Dalmatia (1864–72)	—	14	Bohemia (1873–77)	863·6	158
Military frontiers (1865)	—	31	Moravia	289·0	136
Slav. Croatia (1864–65)	—	30	Silesia	105·0	190
Istria (1873–77)	10·8	38	Galicia	516·6	82
Görz-Gradisca	14·8	66	Buckovina	72·0	128
Trieste and around	19·6	142	Upper Austria	81·6	110
Vorarlberg	7·2	62	Lower Austria	538·8	254
Tyrol	71·8	88	Salzburg	19·4	120
Carniola	22·6	46			
Carinthia	34·0	92	*Average of the Northern countries*		147·2
Styria	115·4	94	,, ,, *Southern countries*		64·0

The same law is to be seen in the kingdom of Bavaria, of which the following is the proof:—

	1857–66	1867–69	1873–75
Northern Circles:			
Franconia, Upper	120	148·5	143·2
,, Lower	88	90·5	76·3
Palatinate	81	82·5	117·7
Franconia, Central	135	133·0	142·3
Averages	**108**	**117·1**	**119·9**
Southern Circles:	1857–66	1867–69	1873–75
Upper Palatinate	42	45·0	41·7
Bavaria, Lower	35	37·5	33·1
,, Upper	77	87·5	82·0
Suabia	80	94·0	80·7
Averages	**58·5**	**66·0**	**59·4**

Up to this point, studying the distribution of suicide in the countries to the south of Germany, we have seen its intensity increase in proportion as they approach that country, but this law is confirmed in those countries to the north, only there they are naturally the southern provinces or parts which offer the highest proportions.

TABLE VII.—*Distribution of Suicide in England-Wales* (1872–76).

DIVISIONS AND COUNTIES	Annual average	On the million	DIVISIONS AND COUNTIES	Annual average	On the million
I. LONDON.			VI. CENTRAL-WEST.		
Middlesex	199·4	88·6	22. Gloucester	29·0	59·5
Surrey	63·2	85·1	23. Hereford	8·0	66·1
Kent	16·4	72·6	24. Shropshire	15·8	59·1
			25. Stafford	43·0	49·1
II. SOUTH-EAST.			26. Worcester	21·2	62·0
1. Surrey	33·0	90·3	27. Warwick	58·2	92·3
2. Kent	55·0	87·4	VII. CENTRAL-NORTH.		
3. Sussex	47·0	111·6	28. Leicestershire	23 0	83·2
4. Hampshire	32·8	62·3	29. Rutland	3·6	153·9
5. Berkshire	17·2	76·0	30. Lincoln	29·4	68·6
			31. Nottingham	29·0	81·6
III. CENTRAL-SOUTH.			32. Derbyshire	27·4	84·3
6. Middlesex	26·2	98·9	VIII. NORTH-WEST.		
7. Hertford	10·4	53·4	33. Cheshire	38·0	70·3
8. Buckingham	9·6	61·9	34. Lancashire	197·4	69·2
9. Oxford	11·4	63·9	IX. YORK.		
10. Northampton	18·0	72·5	35. West-Riding	133·4	71·4
11. Huntington	3·2	50·5	36. East-Riding	26·4	86·1
12. Bedford	5·8	38·2	37. North-Riding	16·4	54·2
13. Cambridge	12·2	63·5			
IV. EAST.			X. NORTH.		
14. Essex	27·6	62·6	38. Durham	37·2	53·6
15. Suffolk	22·6	65·0	39. Northumberland	27·2	70·3
16. Norfolk	33·2	77·0	40. Cumberland	21·2	96·2
			41. Westmoreland	3·8	58·3
V. SOUTH-WEST.			XI. WELSH.		
17. Wiltshire	11·6	47·4	42. Monmouthshire	10·2	46·4
18. Dorsetshire	9·6	50·7	43. South Wales	33·6	43·8
19. Devonshire	38·0	62·6	44. North Wales	16·0	36·7
20. Cornwall	13·8	38·5			
21. Somerset	32·0	66·3			

In Great Britain the average, lowest in Ireland, higher in Scotland and Wales, becomes still more elevated in the North of England, and it acquires its maximum in the South; nor can it be said that this is caused by the metropolis, as it was in France by the irradiation of Paris, because London, on the contrary, gives a smaller proportion of suicides than some of the South and South-west counties, and especially Cumberland. We give in Table VII. the averages of the five years 1872–76 calculated on the population of the census of 1871.

In the averages of the counties there is in truth a somewhat irregular distribution, so that the superiority in numbers of the East and South over the West and North are seen better in the averages of the divisions:

Divisions	1861–70		1872–76	
	Annual average	On the million	Annual average	On the million
I. London	286·9	80·9	279·2	85·70
II. South-east	166·2	82·7	185·0	85·34
III. Central-south	84·8	61·3	96·8	67·09
IV. South-west	105·9	57·0	105·0	55·82
V. Central-west	144·0	56·9	175·2	64·39
VI. East	70·6	59·8	83·4	68·43
VII. Central-north	103·7	76·8	112·4	79·89
VIII. North-west	205·5	65·0	235·4	69·45
IX. Yorkshire	137·3	62·2	176·2	72·07
X. North	73·2	57·3	89·4	65·49
XI. Wales	43·8	31·6	59·8	42·06

In the Netherlands also the provinces of the North-east, where the German element has penetrated, surpass those of the South-west, notwithstanding that here are the principal cities of the kingdom, (the Hague, Amsterdam, Rotterdam, Utrecht, and Leyden). In fact, the latter, which are Brabant (6·7 on the million), Zealand (40·7), Limburg (34·7), Utrecht (41·2), South Holland (34·6), and North Holland (42·6), would give for the two years 1871–72 the average of 33·4 on the million, whilst the first, which are Friesland (54·6), Groningen (97·3), Drontheim (63·0), Over-Yssel (24·6), Gelderland (33·6), would offer the higher proportion of 54·6 on the million.

And yet it is the two provinces to the North-west, Funen and Jutland, in the little kingdom of Denmark, which present fewer suicides than the others, that is to say, than Zealand and other islands of the South-east, amongst which, it may be noted, that even including Copenhagen in Zealand, it is always those nearer to the German coasts, that is to say, Falster and Laaland, which pay a higher tribute to voluntary death. The scale,

indeed, for the period 1865–74 was this: Laaland-Falster, annual average 30, proportion **310·9**; Zealand, Moen, and Samsoe, 57·3 and **306**; Jutland, 186 and **233**; Bornholm, 7·5 and **221**; Funen, 45·9 and **188.**

According to Schoen, in the Governments of Russia situated in the South between 42° and 54° of latitude, the proportion in the first quarter of the century was one in 38,882 inhabitants, whilst in those in the North, between 55° and 64°, it descended to one in 56,577. The same occurs in Norway, where the three dioceses or *stifts* of the north (Bergen with 62·0 on the million, Trondhjem 83·4, Trömsöe 68·8) gave in the decade 1856–65 the proportion of **71·4** on the million of inhabitants, where in the three southern *stifts* (Christiania with 163·4 on the million, Hamar 109·6, Christiansand 63·9) it was **92·3** on the million. This geographical law is less evident in Sweden, since it is not Gothia which gives the larger proportion, but Sweden proper; nor is there any great difference between its numbers and those of Norrland, if we are to reckon Jemtland as included in the latter. For the period 1861–70 there would have been in Gothia (on 2,364,413 inhabitants) the annual number of 151·5 suicides and the proportion of **64·7** on the million; in Sweden (on 1,172,386 inhabitants) 145·6 annual number, and the proportion of **124·2** on the million; in Norrland (inhabitants 492,192) annual number 30·7, and the proportion of **62·3** on the million; the annual average of the whole kingdom being 327·7 and **81·3** per million. However, if the influence of Stockholm in Central Sweden (**372** on the million) be eliminated and a separate group made of the three *län* more to the south than Norrland, the exception will be limited only to the poorer and in general less populated Gothic *län*. Nevertheless we have here a divergence from the general law, which may perhaps

be due to the influence of the mixture of races (Finnish, Scandinavian, and Teutonic), or to the peculiar climate of Sweden, so different by its enormous variations and oscillations from the rest of Europe and also from all other equally northern regions.

Laen	On the million inhabitants		Laen	On the million inhabitants	
	1851–60	1861–70		1851–60	1861–70
Norrbotten	25	26·1	Joenkoeping	40	68·0
Westerbotten	26	20·8	Gothland	78	95·7
Westernorrland	46	74·5	Kronoborg	36	52·9
Jemtland	56	87·3	Kalmar	32	43·1
Gefleborg	71	85·0	Oestergötland	72	85·8
Kopparberg	91	102·1	Halland	46	63·9
Vermland	50	62·2	Skaraborg	54	50·8
Westmanland	121	111·4	Kristianstad	37	63·8
Upsala	94	119·4	Blekinge	41	37·4
Oerebro	61	62·2	Elfsborg	41	46·0
Södermanland	99	109·3	Göteborg	44	69·0
Stockholm	131	137·9	Bohus		
Stockholm city	210	372·1	Malmoehns	74	94·8

Finally, descending to the zone of the North German or Low-German States, we find the intensity of suicide distributed round a common centre formed by the Saxon and High-German countries. Prussia, by reason of its magnitude, or being composed of countries having different climates and inhabited by people of mixed race and very distinct religions, furnishes the most evident proof of this distribution. The provinces which give the lowest averages are the most distant from the pure German centre, and on the contrary those provinces give the highest which are entirely Germanized and which approach gradually that great point of irradiation of suicide, namely Saxony. Such a distribution is to be seen in our map of Europe which marks out the averages arrived at for the period 1868–74 by means of variation in the tints. In Table VIII. we give further the same numbers for each particular province, comparing them with the averages calculated by Wagner for the five

years 1856–60. Whilst Prussia, Pomerania, and Posen to the north-east, and the Rhineland and Westphalia to the west, give in the aggregate under 106 in the million, on the other hand much higher averages are presented in the centre and south-west, namely, in Prussian Saxony, Brandenburg, Silesia, and the new provinces annexed since 1866, in all of which the total stands above 150 in the million.

TABLE VIII.—*Distribution of Suicide in Prussia and its Dependencies.*

PROVINCES AND CIRCLES	On the million inhabitants		PROVINCES AND CIRCLES	On the million inhabitants	
	1856–60	1868–74		1856–60	1868–74
Prussia proper, 1856–60	**99·7**	**107·5**	*Rhine Prussia*	**52·6**	**65·7**
Marienwerder	72·1	71·1	Aachen	27·2	39·7
Danzig	103	94·6	Treves	27·8	53·1
Königsberg	145	152·8	Düsseldorf	74·7	81·4
Gumbinnen	82·3	89·3	Köln	51·8	57·0
Pomerania	**136·0**	**128·1**	Coblentz	57	74·0
Stralsund	188	196·8	*Westphalia*	**63·5**	**69·7**
Stettin	145	143·7	Münster	44·4	39·9
Köslin	101	82·9	Arnsberg	87·7	86·3
Brandenburg	**176·0**	**204·7**	Minden	49·5	66·5
Berlin	171	195·5	*Hanover*	**137·0**	**153·4**
Potsdam	208	254·1	Aurich	79·3	120·3
Frankfurt	160	190·8	Stade	149·0	163·5
Posen	**68·7**	**70·4**	Osnabrück	65·6	74·4
Bromberg	59·7	64·8	Hanover	144·0	153·0
Posen	76·6	73·4	Lüneburg	168·0	190·0
Prussian Silesia	**152·0**	**158·4**	Hildesheim	158·0	154·5
Liegnitz	235	252·0	Clausthal	249	
Breslau	199	191·0	*Hohenzollern*	**81·3**	**118·9**
Oppeln	53·6	52·9	*Nassau*	—	**147·5**
Prussian Saxony	**215·0**	**227·6**	*Hesse-Cassel*	—	**167·0**
Magdeburg	232	230·8	*Schleswig-Holstein*	—	**228·3**
Erfurt	170	197·5			
Merseburg	209	238·3			

The synthetic and most certain law which springs out of these facts is that in the centre of Europe from the north-east of France to the eastern borders of Germany a *suicidigenous* area exists where suicide reaches the maximum of its intensity and around which it takes a decreasing ratio to the limits of the northern and southern States. On this zone there are two points, two lesser

centres of irradiation; the one is given in the north of France by the nine departments surrounding the capital, but the influence of Paris, notwithstanding its great intensity, does not extend to the side of the Loire, the Meuse, and the Ardennes; in all the rest of western Europe the irradiation proceeds from the other point of suicidal influence, which is formed by the purely Germanic countries. When the ethnical and religious differences of the European countries are studied, the explanation of this geographical theorem of moral statistics will be found, and the exceptional influence of one race on many others which operates and exists on this old European soil will be seen in all its force.

If of all the countries, districts, provinces, and circles of Europe we form five groups, which we will call the north, west, central, east, and south, we shall perceive the predominance of the central over the other four according to the method in which the countries indicated are placed in the scale of averages per million. In the centre *two-thirds* of the countries exceed the proportion of 150 on the million; to the north about *three-quarters* stand between 50 and 150, and in the south more than *three-quarters* do not exceed the proportion of 50 suicides per million of inhabitants in the year.

§ 2. *Telluric conditions.*

It would be necessary to enquire also into the influence of the telluric conditions on human actions, but we are not able to say much on the subject. It is certain that if orographic conditions influence the physiological and anthropological characters of man, his stature for instance, they have not less influence on the psychical activities as is proved by the history of civilization. If we were to

arrange the topography of suicide synthetically we should find an inverse relation between orography and the frequency of voluntary deaths. For example, the great plain of the Po in Italy gives the highest averages, and after the flats of Emilia, Venetia, Piedmont, and fertile Lombardy comes Latium, the greater part of which towards the Mediterranean sea is formed of lowlands. The mountainous parts of Italy would give on the other hand the smaller contribution to suicide; for example, the provinces of Novara in Piedmont, Sondrio and Bergamo in Lombardy, Arezzo, Lucca, and Massa-Carrara in Tuscany, Porto-Maurizio in Liguria, Aquila and Teramo in the Abruzzi, and Caltanisetta in Sicily. In France again the lower numbers would be given by Corsica, Roussillon, Auvergne, Savoy, and Languedoc, whilst in the great plains of the Seine, in the valleys of the Loire, in Champagne, Picardy, Flanders, Normandy, and Artois the average would be much higher. In Great Britain, Scotland and Wales, composed almost entirely of mountains, give scarcely half the number of suicides which fertile and almost flat England yields. Ireland, it is true, though full of lowlands and valleys, is an exception to the rule, but besides that the data we possess are too old (1831–41), it is in very different conditions as to climate, religious faith, and wealth. In the Austrian-Hungarian empire also the Alpine regions, Tyrol, Vorarlberg, Carinthia, Carniola, Upper Austria, and Styria take the lowest places in the scale, whilst at its head stand Galicia, Bohemia, and all the great valleys of the Danube. The mountainous Cantons of Switzerland either have no suicides (1876), or have a proportion very far inferior to the cantons of the valleys of the Rhine, of the Aar, and of the Rhône.

And in the centre of Europe, or, to speak more exactly, the great Germanic plain, which extends from the valley

of the Elbe to that of the Oder, is that geographical area where suicide is at its *maximum*. In Belgium the elevated regions of Luxemburg, Liége, and Namur are inferior in number of suicides to the flat provinces of Flanders, but especially to the low valley of the Scheldt, in the province of Antwerp. The same thing is repeated in the great northern mountain zones of Sweden and Norway.

With regard to hydrography, it appears that the regions of the great rivers are most afflicted by suicide; as is the valley of the Po in Italy, that of the Seine, of the Loire, and of the Rhône in France; of the Elbe, the Oder, Danube, the Main and the Rhine in Germany; of the Thames in England; and of the Scheldt in Belgium. On the contrary, on marshy or excessively low lands the suicidal tendency diminishes, as in the province of Grosseto, of Rovigo, Pisa, Caserta, and of Cagliari in Italy; or as in the Landes and Morbihan in France, the whole of Ireland and the low countries surrounding the Zuyder Zee, and Jutland in Denmark. In Germany itself the marshy countries, with saline marshes or over-abundant lakes and pools, give the lowest numbers; Prussia proper and Pomerania belong to this class, and stand below the sterile but drier Brandenburg, and the sandy Posen. The northern portion of Hanover, including the circle of Aurich, so scattered with marshes as to make it like the neighbouring Holland, gives a less proportion than Lüneburg, which, nevertheless, consists in the main of an unproductive but less swampy land. The average of Hungary is equally low in comparison to the other countries of the Austrian Empire; here it is useful to mention the great pools and the unhealthy and marshy zone of the Voivodina, the Banat, and all the district bounded by the low valleys of the Theiss and Danube, in Lower Hungary.

Up to this point what is said of oro-hydrography agrees

with the relation between the number of suicides and the fertility and cultivation of the soil. The poor countries, whether by nature or the want of skill, also stand below the fruitful and well cultivated in the matter of suicide; the examination only of the provinces or the regions that we have cited will decisively prove this. But here exceptions are frequent, because the cultivated man, who pays the larger tribute to this propensity, does not always inhabit the richest countries; often he is struggling with an inhospitable and unfavourable condition of nature; but the general relation just indicated will be comprehended only if the influence which civilization has on the developement of agriculture is considered.

Other observations may be made on the geological nature of soils. The regions where suicide predominates are all those formed by alluvial deposits of the more recent epochs; regions, that is to say, which up to the tertiary epoch had remained covered by the sea, and which, emerging only in later times, assisted the developement of the more recent flora and fauna. To these kinds of lands belong Denmark, the Germanic plain, Poland and the western half of Prussia, the Isle de France and the Orleannais, the valleys of the Thames, the Po and the Danube, and part of that of the Rhine, Gascony and Guienne, part of Austria, Lower Bavaria, the Rhine Cantons of Switzerland, the centre of Bohemia and the Roman province; and all these are in the zones of greatest intensity. On the other hand, even from that remote period, never covered by the tertiary sea, emerge those most ancient geological formations out of which were formed Scotland, Ireland, and Wales, Sweden and Norway, Brittany, Auvergne, Dauphiny, and Savoy, almost the whole of Spain and Portugal, the Italian peninsula (excluding Puglia, Latium, and Campania),

the half of Sicily and Sardinia, all the great Alpine region with Upper Switzerland, Tyrol, Carinthia and Carniola, the Military Frontiers and Slavonia, then the zone of the Carpathians and that more extensive than all comprised between the Vosges, Jura, the Ardennes, Schwarz-wald and the Taunus, that is to say, Westphalia, Rhenish Prussia, Luxemburg, Alsace-Lorraine and Picardy. Now in these regions the proportion of suicides is generally lower than in the zones near the more recent geological formations. It may be perceived that, although the number is more or less high on the quaternary diluvial and alluvial soils, it is less marked on the molasse soils (the eocene, miocene, and pliocene), and finally it always presents a lower average on the chalk and slate soils of the secondary period. Lastly will be found those few countries placed on the lime, gneiss, slate and granite rocks of the great Alpine system. Of this Petit has shown some insight in a work, now somewhat out of date, accompanied by maps where the influence exercised by the nature of the soil on the propensity to suicide is also studied.

§ 3. *Seasons and months.*

The most important item in considering the climate of any country is the gradual transition of the seasons, the influence of which on suicide has been often demonstrated. It is in fact known that the number of violent deaths varies in all countries according to the position of the earth with respect to the sun. In the season of the year in which the earth is in aphelion the average proportion of suicides reaches its maximum limit; it falls on the contrary to its minimum when the earth is in perihelion. In other words the transition period between

spring and summer, and especially the month of June, exercises the most positive influence on suicidal tendency, whilst that of winter, particularly of December, would be negative. It is strange that for long an opposite opinion was held; it was maintained that suicide was more frequent in damp, cloudy, and dark weather, such as helps the developement of the melancholy passions. Cheyne and Osiander were the defenders of this error, which, notwithstanding the powerful but unfounded support of Montesquieu, no positive fact has ever proved. In like manner it is to be noted how others (Lisle, for example) deny almost all relation between seasons and the number of suicides, discovered at the beginning of the century and since confirmed by all civilized States. Nevertheless, it is sufficient to recall the regular distribution of the cases of madness and crime during the year to be convinced that suicide is equally subject to the influence of the periodic and constant changes in the astronomical conditions of the earth, and above all of the variations in temperature, humidity, and barometrical pressure. Let us first see by a comparative study of various countries if this influence of the seasons actually appears (Tab. IX. p. 58 *seq.*)

In our table the spring is reckoned as composed of March, April, and May; the summer of June, July, and August; autumn of September October, November; and winter of December, January, and February.

We cannot help acknowledging that through the whole of Europe the greater number of suicides happen in the two warm seasons. Naturally we say in the aggregate, because there are exceptions. Out of 34 different periods taken from the statistics of eighteen European States, the maximum of suicide falls 30 times (88 per cent.) in *summer*, 3 times (9 per cent.) in spring (Sweden 1835–51,

Ireland and Holland) and only once (4 per cent.) in autumn (Baden, 1834–40–44). But the exception of Baden is of little value if it is taken into consideration that in two later periods, and especially in the last of the eight years, that State fell again under the common law. As to the countries which give the maximum in spring, they belong all three to the North of Europe, where the change between the cold and warm seasons is sudden and acts much more severely upon the constitution, inasmuch as the temperature of the winter half-year is very low, and that of the summer half-year on the other hand very high. These sudden changes of temperature are naturally more felt in the intermediate seasons, and most in that which marks the transition from cold to heat, namely the spring. As to the minimum, that also falls 30 times (88 per cent.) in *winter*, and only 4 times (12 per cent.) in *autumn* (Norway, Ireland, Holland and the canton of Berne). But the last of these anomalies may be explained by the smallness of the numbers, which consisted of scarcely 97 suicides, whilst the other three refer only to those northern countries whose climatic divergence from the rest of continental and southern Europe is too great to allow of an exact comparison. Taking now into consideration the order in which the four seasons affect suicide, we find that in the greater number of times (26 in 34, that is to say, 76 per cent.) it was as follows: *summer, spring, autumn, and winter*— and this in Sweden, Denmark, Belgium, France, Russia, Saxony, Bavaria, Würtemberg, Baden, Austria, Switzerland, Italy, and Spain. Thrice autumn exceeded spring, namely in Russia and Baden; thrice also winter had higher returns than autumn, in Ireland, Holland, and Norway, and once only has its highest place been immediately after summer, in the canton of Berne. However in

TABLE IX.—*Influence of the Seasons and of the Annual Temperature on the tendency to Suicide in the Principal Civilized Countries and for Different Periods.* (*Proportion per* 1,000.)

SEASONS AND PERIODS OF THE YEAR	Russia 1831	Norway 1860-72	Sweden		Denmark			Ireland 1831-41	England and Wales 1838-39	Holland 1869, 1871, 1872	Belgium		France					
			1835-51	1871-75	1851-56	1858-65	1865-74				1841-49	1858-66	1827-55	1835-43	1836-52	1851-60	1858-65	1866-76
Number of cases . .	1103	1047	3665	1,737	2,437	—	4,656	755	2,001	387	2,428	—	65,356	23,873	52,103	38,205	—	57,131
Spring	250	283	301	286	264	284	—	290	—	320	275	279	282	283	283	280	279	286
Summer	301	325	268	321	337	312	—	270	—	297	301	298	304	306	302	300	298	300
Autumn	252	222	221	228	211	227	—	218	—	183	229	218	214	210	213	217	218	213
Winter	197	170	210	165	188	177	—	222	—	200	195	205	200	201	202	203	205	201
First three months .	213	186	221	178	198	—	200	231	217	204	208	—	224	223	224	227	—	226
Second „ „ . .	275	329	324	324	340	—	329	280	281	330	301	—	308	305	307	302	—	306
Third „ „ . .	306	271	255	291	270	—	278	284	270	269	282	—	270	277	271	268	—	268
Fourth „ „ . .	206	214	200	207	192	—	193	205	232	197	209	—	198	195	198	202	—	200
Six warm months . .	581	600	579	502	610	—	607	564	551	599	583	—	578	582	578	570	—	574
„ cold „ . .	419	400	421	498	390	—	393	436	449	401	417	—	422	418	422	430	—	426
Four warmest months .	391	442	405	433	450	—	—	393	—	427	404	401	407	416	407	401	—	402
„ coldest „	609	238	595	335	259	—	—	607	—	255	261	266	264	261	265	266	—	266
„ temperate „		320		232	291					318	335	333	329	323	328	333	—	332
Diff. winter, summer .	104	155	58	156	145	149	—	48	—	97	106	92	96	105	100	97	93	99
„ spring, autumn .	53	13	91	121	76	53	—	72	—	137	46	61	68	73	70	63	61	73

TABLE IX. continued.—Influence of the Seasons and of the Annual Temperature on the tendency to Suicide in the Principal Civilized Countries and for Different Periods. (*Proportion per* 1,000)

SEASONS AND PERIODS OF THE YEAR	Prussia 1869-72	Kingdom of Saxony			Bavaria			Würtemberg		Baden			Austria		Switzerland 1876	Canton of Berne 1871-72	Italy 1864-77	Spain (Legoyt
		1847-58	1859-68	1848-67	1851, 1852, 1856, 1857	1858-65	1868-75	1860-69	1873-75	1834, 1840, 1841	1854-56	1864-72	1851-54	1858-59				
Number of cases . .	11,759	5,497	2,898	10,638	1,412	?	3,509	?	916	445	439	1,847	5,421	3,242	540	97	11,669	?
Spring	284	281	277	278	271	282	290	279	291	258	215	284	280	281	269	247	297	260
Summer	**290**	**307**	**294**	**303**	**289**	**308**	**303**	**311**	**308**	264	**330**	**293**	**338**	**315**	**287**	**330**	**313**	**379**
Autumn	227	217	225	221	226	218	212	210	234	**281**	302	230	211	219	248	165	196	197
Winter	199	195	204	198	214	192	195	200	167	197	153	193	171	155	196	258	194	164
First three months .	222	211	217	211	235	—	211	233	203	166	192	223	198	210	162	278	217	—
Second „ „ . .	302	313	303	313	282	—	307	300	315	282	342	283	323	303	302	289	332	—
Third „ „ . .	267	271	277	273	265	—	282	270	272	299	284	281	297	286	270	278	263	—
Fourth „ „ . .	209	205	203	203	218	—	200	197	210	252	182	213	182	201	266	155	188	—
Warm six months . .	569	584	580	586	557	—	589	570	587	581	626	564	620	596	572	567	595	—
Cold „ „ . .	431	416	420	414	443	—	411	430	413	419	374	436	380	404	428	433	405	—
Four warmest „ . .	390	418	402	413	387	—	409	419	415	374	474	393	454	426	387	392	427	—
„ coldest „ . .	267	257	264	262	279	—	259	267	234	626	526	268	239	574	286	299	254	—
„ temperate „ . .	313	325	334	325	334	—	332	314	351			339	307		327	309	309	—
Diff. winter, summer .	81	112	90	90	75	116	108	111	141	67	177	100	167	130	91	72	119	215
„ spring, autumn .	57	64	52	57	45	64	78	69	127	+23	+87	51	69	62	21	82	101	63

none of the 34 periods we have studied have the cold six months, from October to March, furnished more suicides than the warm six months, from April to September. The most important differences between the two half-years were in Austria (1851–54), Baden (1854–56), Denmark (1851–56 and 1865–74), Holland and Norway; the least marked on the contrary were in Sweden (1871–75), England and Wales, and in Bavaria (1851–57).

Dividing the year then into four equal quarters, another proof is found of the regularity with which the annual number of suicides is distributed in these 18 States. In fact out of thirty-one different periods of their statistics, we find the maximum of voluntary deaths falls fully twenty-eight times (90 per cent.) in the second quarter (April to June), and only in three cases (10 per cent.), taking into consideration the usual exceptions of Russia, Ireland, and Baden, this maximum fell in the third quarter (July to September). The variation is greater in the minimum number of suicides, which occurs twenty-four times (77 per cent.) in the fourth quarter (October to December), and seven times (23 per cent.) in the first (January to March), and more manifestly in Norway, Sweden, England, Baden, and Switzerland, and with the least variety in Belgium and Würtemberg.

This regularity in the annual distribution of suicide is too great for it to be attributed to chance or the human will. As the number of violent deaths can be predicted from year to year with extreme probability of any particular country, so can the average of every season also be foreseen; in fact these averages are so constant from one period to another as to have almost a specific character from a given statistical series. It is sufficient to observe the marvellous analogy of the six distinct periods belonging to France, the three belonging to

Saxony, and the two to Austria, and so on. It might be supposed, under so fatal and general an influence of the warm season, that in the southern countries of Europe the summer would be distinguished by a number of suicides extraordinarily above that of the cold season; and in fact if we look to the whole number of the period 1864–77, almost a *third* of the suicides in Italy take place in summer, whilst only a *fifth* happen in winter; the divergence between the extreme seasons in Italy is then important, but it is not among the most important. In other countries, for example Baden, Würtemberg, Austria, Sweden and Norway, and Denmark, the variation between summer and winter is a little more or less than a *sixth*. The slight differences between summer and autumn in the Italian returns is then worthy of note, for they are on the contrary much larger in the statistics of the northern States of Europe; Saxony and Würtemberg alone give autumnal and winter averages as nearly alike. Of equal consequence is the great proportion of suicides which happen during the summer in Spain (see Legoyt); thus it was precisely this fact which led Oettingen to suspect that the influence of the warm season on suicide would make itself felt more in the southern countries than in those of the centre or north of Europe. But the Italian returns would not confirm this law, since the difference between the extreme seasons in Italy is nearly the same as in Bavaria, Würtemberg, Belgium, and France. On the contrary the northern countries, like Denmark, Sweden and Norway, would give a summer average much higher than that of Italy.

To estimate justly the influence of the annual temperature on suicide, it suffices to observe the difference between the intermediate and the extreme seasons; in general autumn and winter on one hand, spring and

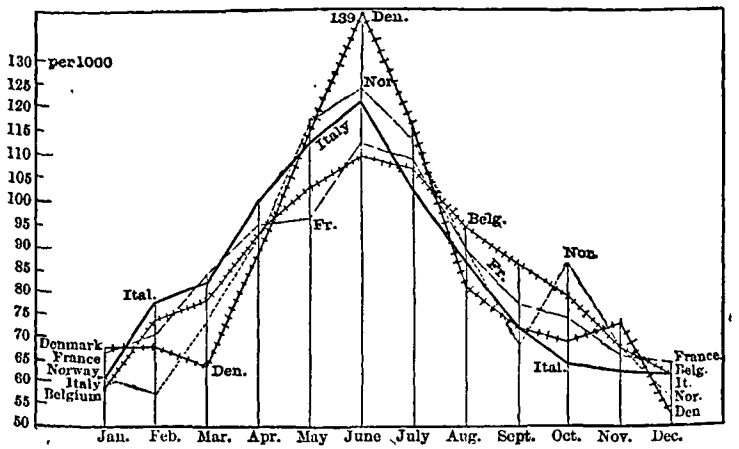
summer on the other, form two very distinct periods in the year which denote that the falling and rising of the temperature produce the most marked disturbance on the psychological activities of man. From summer to autumn, as from winter to spring, there is always a sudden leap, which often amounts to as much as the *tenth* of the total annual number, as in Italy and Denmark; sometimes it exceeds that number by not a little, as in Würtemberg, Holland, Norway and Sweden, and even attains as great a difference as a fifth in Spain.

It is worth while now to consider the months singly which hitherto we have studied together in seasons. Our Table X. shows this law in the monthly distribution of suicide: 'The number of voluntary deaths goes on regularly increasing from the beginning of the year to June, in which month it commonly reaches its maximum, and hence falls also with regularity to the end of the year, the minimum falling generally in the month of December.' This statistical result was already implied in the previously noticed law relating to the seasons and quarters of the year, but the regularity of suicides may be made more apparent by the curves of the monthly distribution. (See p. 63.)

The statistics of all countries agree in showing us this result. Guerry, whom it is always needful to cite when the synthetical and most certain sociological laws are treated of, has, from the large aggregate of 85,334 suicides which took place in France in the period 1835–60, noticed that the maximum falls under the *summer solstice*, the minimum under the *winter solstice*; and based as this is on data gathered from all parts by the labour of Fodéré, Duglas, Petit, Legoyt, Wagner, and Bonomi, it is certainly among the surest and most incontrovertible results of statistics. The number of cases in confirmation of the

law of the monthly distribution depends upon this, for one of the first things investigated by the statistics of suicides was that of the time of year in which they happened. The registration of the day and month in which the body of the suicide is found, is the easiest thing and less subject to individual misrepresentation, since it does not concern a fact upon which opposite or chance opinions can be

FIG. 1.



Monthly curve of suicide in France, Italy, Norway, Belgium and Denmark. (Maximum in June.)

expressed. The monthly distribution of suicide thus becomes in moral statistics the element most allied to that of general demography.

In our Table X. the comparative numbers are computed as if the months had all an equal number of days. Omitting the small numbers of Berne, Baden, and Holland, in which naturally there are anomalies, all the others prove the regularity and constancy of the results. The influence of the annual temperature shows itself with uniform energy

TABLE X.—*Distribution per Month of Suicides in the Principal States of Europe and at Different Periods.* (*Proportion per* 1,000.)

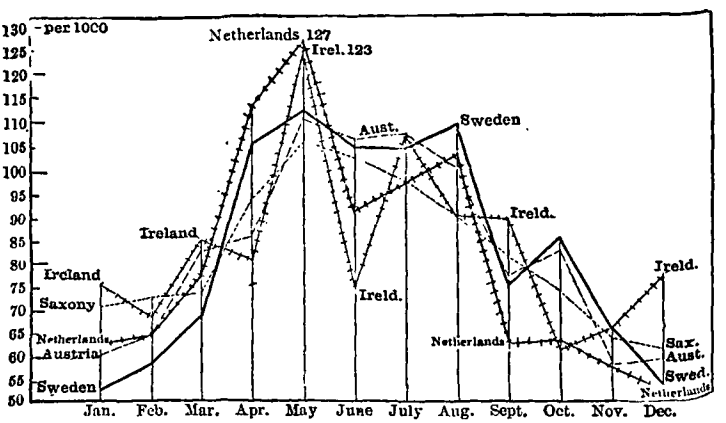
MONTHS	Russia 1831	Sweden		Norway 1866–73	Denmark 1851–56	Ireland 1831–41	Holland 1869–72	Belgium 1841–49	France							Prussia 1869–72
		1835–51	1871–75						1827–55	1835–43	1836–52	1835–60	1851–60	1866–70	1871–76	
Number of cases	1,103	3,665	1,737	1,047	2,437	755	387	2,428	65,356	23,873	52,103	85,344	38,205	24,948	32,183	11,759
January	66	70	53	60·1	67	76	63	57	68	66	71	68·1	72	68	69	70·3
February	75	78	58	56·3	68	69	65	73	72	75	72	74·8	69	80	70	65·3
March	86	73	68	72·4	63	96	79	78	84	86	83	83·9	86	86	84	85·9
April	92	91	106	93·4	88	81	113	94	95	93	95	93·7	93	102	97	97·4
May	105	137	113	115·3	113	123	127	103	103	105	102	101·9	101	105	96	99·5
June	110	96	105	122·6	139	76	92	104	110	110	111	108·4	108	107	110	103·0
July	107	96	105	112·1	116	103	99	103	106	107	104	101·1	105	100	108	101·9
August	89	76	110	89·3	82	91	104	94	88	89	86	88·9	87	82	88	83·5
September	75	83	76	68·1	72	90	63	85	76	75	77	79·0	76	74	76	80·6
October	70	73	86	86·4	68	62	64	78	74	70	72	72·4	78	70	74	77·2
November	65	65	66	66·8	71	66	57	66	64	65	64	64·0	64	66	65	68·5
December	60	62	54	56·2	53	78	74	65	60	60	61	63·8	61	61	63	61·5

TABLE X. continued.—*Distribution per Month of Suicides in the Principal States of Europe, and at Different Periods.* (*Proportion per* 1,000.)

MONTHS	Saxony			Bavaria		Würtemberg		Baden		Switzerland 1876	Canton of Berne 1871-72	Austria		Italy		
	1847-58	1859-63	1848-67	1851-52 1856-57	1863-75	1860-69	1873-75	1854-56	1864-72			1851-54	1868-59	1864-68	1869-73	1874-77
Number of cases	5,497	2,898	10,638	1,412	3,509	—	916	439	1,847	540	97	5,421	3,242	3,447	4,122	4,100
January	65	72	64	68	61·9	64	49	46	63	45·4	110	62	61	57	54	68
February	67	73	72	77	72·7	81	63	66	64	62·4	110	60	65	71	82	77
March	79	74	75	90	79·5	88	92	80	86	56·4	70	76	84	83	83	81
April	91	95	94	82	103·9	83	93	91	88	112·8	113	88	86	91	102	104
May	111	107	109	97	104·8	108	107	144	92	98·3	60	116	111	121	111	108
June	111	103	109	102	109·0	109	115	107	88	92·1	114	119	106	118	114	132
July	110	98	106	95	107·3	99	117	109	151	118·2	110	121	107	98	106	104
August	86	91	88	92	93·0	103	76	114	87	74·5	100	98	102	94	83	85
September	75	87	80	78	78·7	68	79	61	76	75·2	62	78	77	76	75	64
October	80	75	77	84	69·7	75	88	86	75	83·6	60	65	84	64	66	62
November	62	64	64	64	65·4	67	67	55	70	90·2	41	68	58	62	63	58
December	63	61	62	70	63·1	55	55	41	60	90·9	50	49	59	63	61	58

in all the countries, so that it places a phenomenon eminently psychical, such as suicide, beside those which are of a physiological nature, as births and deaths. In fact, the proportional average and the daily average of voluntary deaths augment regularly from January to June, and then diminish from June to December; the great series, such as those for France, Prussia, Norway, Russia, Belgium, Saxony, and Italy, put this annual curve in evidence.

FIG. 2.

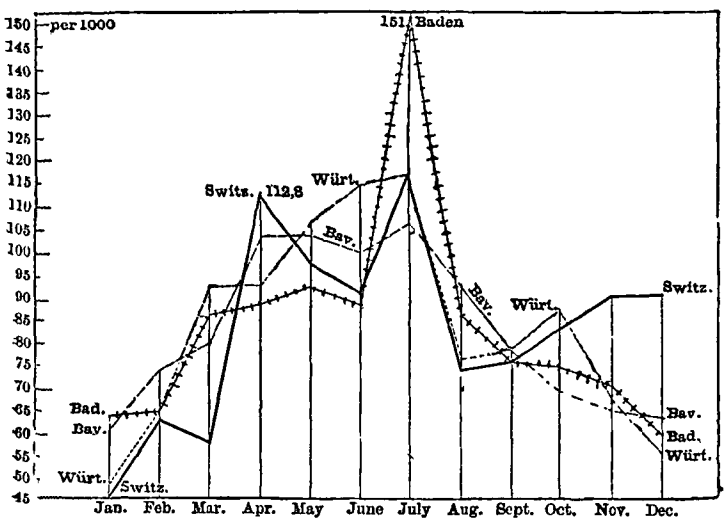


Monthly curve of suicide in Ireland, Saxony, Austria, Sweden, and in the Netherlands. (Maximum in May.)

Out of thirty-two different periods belonging to seventeen European States, the maximum of suicides fell in June nineteen times (in Russia, Norway, Denmark, Belgium, France, Prussia, Saxony, Bavaria, Würtemberg and Italy, Fig. 1); in May eight times (in Sweden, Ireland, Holland, Baden, Berne, Austria, Italy, and Saxony, Fig. 2); and in July, five times only (in Bavaria, Würtemberg, Baden, Switzerland, and Austria, Fig. 3); the proportions for the

three months are 69, 25 and 15 per cent. The minimum, then, in nineteen out of thirty-two times, happened in December (in Russia, Sweden, Norway, Denmark, France, Prussia, Saxony, Würtemberg, Baden, Austria, and Italy): seven in January (in Sweden, Belgium, Bavaria, Würtemberg, Switzerland, and Italy); five in November (in

FIG. 3.



Monthly curve of suicide in Bavaria, Switzerland, Würtemberg, and Baden. (Maximum in July.)

Holland, Saxony, Bavaria, Berne, and Austria); and only one in October (in Ireland); thus the four months stand in the relation of 60, 22, 15, and 3 per cent. The most important exceptions to the law therefore are given by the smallest numbers.

The difference between the warmest and coldest month oscillates in all the countries from the maximum of $\frac{164}{1000}$,

in Baden, 1854–56, to the minimum of thirty-two in Bavaria, 1851–52–56–57; but generally it stands between 40 and 80 per thousand. The countries which differ most by excess from this average are Baden, Denmark, Sweden, Switzerland, and Italy (in 1874–77), and those which differ by being under the average are Bavaria and Belgium. In nearly half, fifteen in thirty-two different periods, the divergence is limited between $\frac{40}{1000}$ and $\frac{50}{1000}$, and most noteworthy for regularity in the interval between the extremes are the French statistics, which are also the most numerous in our table. For the rest even the smaller numbers, although they furnish more exceptions than the large, always show a uniform tendency to approach the general law. This is proved by the statistics of the most important cities of which our following Table XI. gives on the average per thousand the distribution of suicides according to months and seasons, reckoning as if the months were composed of an equal number of days.

The influence of town life on man is such in the civilized States, that we cannot be surprised if exceptions to the laws of chronological distribution of suicides are there multiplied. Nevertheless in eleven different periods, concerning nine great cities, the maximum fell nine times in the usual months of May, June, and July; once only in the beginning of spring, in Berlin, and once again in the middle of summer, at Prag. The minimum, however, has varied more; it fell only twice in December, twice in November, twice in October, once in January, thrice in February, and once only in August. Many warm months have furnished fewer suicides than cold ones; for example, June at Vienna, August at Westminster, July at Geneva. Nevertheless there is not from month to month that regular progress and parabolical figure which the State statistics gave us; there are sometimes exceptional leaps,

TABLE XI.—*Distribution of Suicides according to Months in several great Cities. (Proportion per 1,000.)*

	Paris 1834–43	London		Berlin 1852–54	Vienna 1871–72	New York 1871–77	Frankfurt S. M.		Westminster 1812–36	Prag 1869–71, 1874–76	Geneva 1838–47, 1852–54
		1836–37	Guerry				1853–66, 1869	1867–75			
Number of cases	4,595	297	—	204	273	1,009	111	264	656	258	204
January	81	60	56	97	75	75	45	84	81	57	84
February	84	66	54	48	76	56	81	83	78	79	94
March	82	63	62	**117**	86	72	63	91	96	107	69
April	81	85	72	68	97	85	99	71	78	91	109
May	103	**139**	103	112	**119**	**114**	108	88	85	107	**110**
June	97	93	112	83	67	101	**126**	91	**114**	79	89
July	**104**	86	**124**	97	101	105	99	**126**	101	110	54
August	93	83	115	112	43	86	90	61	69	**114**	110
September	72	99	94	59	89	89	45	95	74	91	84
October	78	89	85	68	90	75	90	88	65	38	89
November	66	58	65	66	74	73	63	55	74	59	54
December	59	79	58	73	83	69	90	72	82	68	54
Spring	266	**287**	237	**297**	**302**	271	270	245	259	**305**	**288**
Summer	**294**	262	**351**	292	211	**292**	**315**	**278**	**284**	303	253
Autumn	216	246	244	193	253	237	198	238	213	188	227
Winter	224	205	168	218	234	200	216	230	244	204	232
Warm six months	550	585	620	531	516	580	567	527	521	592	556
Cold six months	450	415	380	469	484	420	433	473	479	408	444

as from February to March and from August to September at Berlin, from May to June at Vienna, from July to August at Geneva, from April to May in London. These anomalies show that the influence of the annual temperature is disturbed by that of the moral, economic, and material conditions of great cities, although it never fails to assert itself, at least in a general way, in the psychical tendencies of their inhabitants.

The proofs afforded by these facts may serve to answer the objections to moral statistics of those who are willing to concede the constancy and uniformity of the laws which govern physiological phenomena, but deny the advantage of reducing the so-called voluntary acts of mankind to numerical rules. What further do the facts prove? They show that the psychical activities of man are subject to the influence of the natural laws, not less, and perhaps more regularly, than the organic activities. It is evident that instead of speaking of spontaneity or moral freedom, it is now time to introduce into psychology, either individual or collective, the idea that suicide is the evident function of an organ, the brain, subject to many external and internal influences which constantly rule the whole constitution of man. And statistics further aid the exposition of this positivism of psychology, by defining the various proportions of suicides according to the morbid condition of the centres of nervous action in the various seasons of the year. Indeed the regular distribution of voluntary deaths in the course of the year which we have found is in evident relation with that of madness.

All alienists are agreed as to the greater frequency of mental alienation in the summer season, and this law is confirmed by all the statistics of the asylums for the insane. Now Wagner was the first to insist on explaining the greater frequency of suicide in summer by reason of

its connexion with diseases of the brain; because if the cases of voluntary deaths through mental alienation or other physical affections of the nervous centres are examined it will be seen that they are proportionally more numerous in the warm months. By examining the statistics of Italy (1864–76), Belgium (1841–49), and of France (1856–61), we can make a comparison of the different monthly distribution of suicides in general, with those due to madness or other causes, as well in the actual numbers as in the proportions in a thousand.

TABLE XII.—*Influence of Madness on Suicide according to Months, in Italy, France, and Belgium.*

MONTHS	ITALY 1864–76			FRANCE 1856–61			BELGIUM 1841–49		
	Total of suicides	Suicides through mad.	Suicides from other causes	Total of suicides	Suicides through madness	Suicides from other causes	Total of suicides	Suicides through mad.	Suicides from other causes
Actual numbers									
January	635	137	498	1,782	461	1,321	139	44	95
February	759	171	588	1,720	480	1,240	180	70	110
March	902	203	699	2,138	593	1,545	190	64	126
April	1,020	241	779	2,247	649	1,598	229	77	152
May	1,207	304	903	2,463	725	1,738	251	93	158
June	1,248	327	921	2,656	825	1,831	251	88	163
July	1,098	304	794	2,470	772	1,698	252	95	157
August	933	209	724	2,122	624	1,498	218	60	158
September	756	149	607	1,862	576	1,286	208	79	129
October	690	127	563	1,853	503	1,350	192	57	135
November	632	132	500	1,601	448	1,153	160	62	98
December	650	140	510	1,548	422	1,126	158	52	106
Proportions per 1,000									
January	59	55	65	72	63	74	57	51	59
February	78	76	78	75	74	77	73	90	75
March	84	82	85	85	86	87	78	75	78
April	98	100	97	93	93	94	94	93	97
May	113	123	109	98	99	98	103	108	98
June	**120**	**136**	**115**	**112**	**118**	**107**	**104**	**106**	**104**
July	102	123	96	99	107	96	103	**111**	97
August	87	80	88	85	86	85	94	70	97
September	73	62	76	77	83	75	85	95	83
October	64	51	67	75	69	76	78	66	84
November	61	55	63	66	64	67	66	75	63
December	61	57	61	63	58	64	65	60	65
Seasons per 1,000									
Autumn	198	168	206	218	216	218	229	236	230
Winter	198	188	204	210	195	215	195	201	199
Spring	295	305	291	268	278	279	275	276	273
Summer	309	339	299	296	311	288	301	287	298

If the proportions of the total numbers of suicides are compared with those caused by madness, it will be observed that these preponderate much more in the spring months and the early summer up to July, whilst their frequency diminishes much in the later summer months, and those of autumn and winter; but if these gain their maximum in June in Italy and France, in Belgium on the other hand it is reached in July. This result agrees then with the opinion which attributes the greater number of suicides of the spring and summer months to the developement of more numerous mental affections, the injurious effect of a high temperature on the cerebral organism being well known to alienists. The proportion of suicides through madness, however, does not explain entirely the higher ratio of voluntary deaths from other causes during spring and summer; the reason is that the cerebral change may be brought on either by an inherent suicidal tendency or by a tendency to madness. It is then to be noted that suicide and madness *are not influenced so much by the intense heat of the advanced summer season as by the early spring and summer, which seize upon the organism not yet acclimatised and still under the influence of the cold season.* And this also applies to the first cold weather, as may be seen in the proportional figures of our statistical tables, perhaps better still in the second elevation, which all the curves, as shown by us, offer in the autumn months of October and November, when the change from the warm to the cold season is more severely felt by the human constitution, and especially by the nervous system.

§ 4. *Meteorological changes and lunar phases.*

We possess no certain data concerning the influence of meteorological changes on suicide, and what we have said of the seasons and months is indeed sufficient to show what the influence of the annual temperature would be. It would be most useful to enquire whether the oscillations of suicides coincide with barometric, hydrometric and anemoscopic variations, or with the alternations of meteorological phenomena, such as rain, winds, tempests, magnetic storms, electric discharges, the chemical state of the atmosphere, as has been already proved by the cases of accesses of madness and epilepsy. That a rainy autumn following a dry summer is more productive of violent deaths, as Esquirol and Cabanis assert, and that in the rainy and cloudy days exactly *nine-tenths* of the suicides happen, as Villemair maintains, we have not sufficient data either to affirm or deny; here it is necessary to advance by observations of a numerous series of facts, otherwise we run the risk of falling into incorrect suppositions. Further the meteorological conditions vary from country to country and from day to day in so extended and complicated a way as to render this comparative mode of study extraordinarily difficult. Availing ourselves in the meantime of the information we possess on the meteorological returns for Italy during the period 1866–74, we find that there exists a notable parallelism between the number of suicides on the one side, and the elevation of the daily average temperature and the regularity of the atmospheric pressure on the other; hence it is that with these two modifiers of the living organism heat would act in a positive way and the gravity of the air in a negative way. In fact the daily average pressure shows its maxi-

mum in the winter, its minimum in the spring; and in respect of months the maximum in the seven years 1866–72 was chiefly in February, January, and December, which is the same as saying it corresponded with that period in which suicides are least frequent. As to the temperature, on the other hand, the months which mark the first important elevation on the annual average (May–June) we find to be those in which the proportion of suicides is higher. The tension of vapour (absolute moisture) corresponds to the temperature and stands in an inverse ratio to the relative moisture, so that their minimum and maximum are in opposition. The psychrometer in winter shows a higher return than the annual average, while in summer it is much lower; and since the proportion of suicides is greatest in the warm months and least in the cold, it seems that the influence of moisture (relative) is exercised in a negative sense, and this agrees with what we said with regard to humidity of the soil. The state of the heavens in the winter being generally cloudy, especially in January, in which month the minimum of suicides occurs, would have no influence in the sense claimed by Villemair; on the contrary the elevation in the annual curves of violent deaths which is seen in October and generally in the autumn, eminently rainy months and seasons, seems to demonstrate a positive influence of rain.

The researches made by Etoc-Demazy and Archambault on the influence of lunar phases are more contradictory. It is most probable that the moon exercises more or less influence on suicides, as it does on fits of madness and epilepsy, which are generally aggravated at the time of the waning moon (full moon and second quarter). In this period in fact, according to Schiaparelli, cloudy and stormy weather prevails. Demazy and Archambault were not able to discover any direct influence

of the lunar phases on the tendency to suicide. Cherau on the contrary had observed that from the first to the 9th lunar day there was an average of 21 suicides, from the 10th to 18th, 26, and from the 19th to 28th only 16 (Foissac.) We have only to add the statistical data of Prussia for 1869, from which the increase in suicides would appear to be in the second and fourth lunar phases, the decrease on the contrary in the first and third; the influence of the moon also, contrary to the common opinion, would be more sharply felt by men than by women, particularly at the new moon. But figures are of little worth when they relate to only a single year.

Influence of Lunar Phases on Suicide in Prussia in 1869.

	Actual numbers			Proportion per 1,000		
	Men	Women	Total	Men	Women	Total
New moon . .	614	151	765	245·4	253·4	246·8
First quarter . .	644	149	793	257·4	250·0	255·8
Full moon . .	604	134	738	241·4	224·8	238·6
Last quarter . .	640	162	802	255·8	271·8	258·8
Total . .	2,502	596	3,098	1000·0	1000·0	1000·0
Unknown . .	71	18	89	—	—	—

§ 5. *Days and hours.*

Over and above the account of the number of voluntary deaths in the larger divisions of the year, that is to say in seasons and months, it is worth while to study their distribution according to decades, weeks, days, periods of the day, and hours; but statistics are in general silent on the subject, and we possess little except the results obtained by the patient research of Guerry and Brierre de Boismont. According to the latter, suicides are committed with greater frequency during the *first ten days* of the month than during the other twenty days, and it is

a very strange fact that the first two days also give the largest number. On 4,595 suicides in Paris (1834–43) the following numbers were obtained, actual and proportional:

First ten days	of the month,	suicides	1,727	prop. per cent.	37·55
Second ten days	„	„	1,488	„	32.20
Third ten days	„	„	1,388	„	30·25

The proportion of the last ten days would be still smaller if we deducted the 31st day which is in seven of the months. From whence this fact proceeds is not clear, unless it be that in the first days of each month debauchery, dissipation, orgies, especially in large cities, are more numerous.

The enquiry made by Guerry into the distribution of suicides between different days of the week supports these inductions. The illustrious demographer, with a series of 6,587 observations in France, has constructed a scale from Monday to Sunday which affords interesting revelations.

	Total proportions (per 100 on 6,587 cases)	Proportions of Sexes	
		Men	Women
		per cent.	per cent.
Monday . . .	15·20	69	31
Tuesday . . .	15·71	68	32
Wednesday . .	14·90	68	32
Thursday . .	15·68	67	33
Friday . . .	13·71	67	33
Saturday . . .	11·19	69	31
Sunday . . .	13·57	64	36

The first days of the week predominate over the later, and Tuesday, Thursday, and Monday are those on which suicides most frequently cut short their lives: on the other hand the least fatal are Saturday, Sunday, and Friday. It appears to us easy to understand the psychological reason of this statistical fact. Saturday is the favourite day of those who have to live by manual labour; it is the

day on which the workman receives his pay, and thus is the day of joy, of material well-being, of moral quiet. And this content of mind lasts through Sunday, on which day the gluttonous dissipated man of the people wastes the money gained in the week, whilst also the solemn festivity, the quiet and general gaiety, distract from their sad thoughts those who think of leaving life voluntarily. But the new week begins with the satiety of gluttony, the effects of drunkenness, the remorse for prodigality, the burthen of misery and of moral sufferings, and especially with the intolerance of work among the labouring classes by which the greater number of violent deaths from Monday to Thursday are explained. And the observation of Oettingen is noteworthy, that the frequency of feminine suicides stands in an inverse ratio to the male in the two halves of the week (except on the Saturday). The high proportion among women on the Sunday is of the greatest psychological interest.

The times of day also presumably exercise an influence on the suicidal tendency, so variously distributed in them is the physiological and psychological activity of man. It would appear however that night is preferred by suicides, as much on account of its silence and isolation, as for the greater freedom by which they are then surrounded, but it is not so always. Brierre de Boismont, out of 4,595 suicides in Paris, found that 2,094 of them happened by day, 766 in the evening, and 658 by night; the hour is unknown in which 1,077 took place. Even reckoning the evening and the night together, the day has the preponderance. And we also, out of 58 suicides which happened in Berlin in 1869, of which we are able to ascertain the hour, have found the number by day (31) predominate over that of the night (13) and of the evening (14). But much more interesting in number and results are the returns of

11,822 cases which happened during the four years 1869–72 in Prussia. We present to the reader the actual and proportional totals, reserving to ourselves to return elsewhere to the difference of the sexes.

PRUSSIA	Actual numbers				Proportion per 1,000			
	1869	1870	1871	1872	1869	1870	1871	1872
Early morning .	70	83	98	106	22·9	28·0	35·9	35·9
Hours A.M. . .	249	383	431	471	78·2	129·3	158·3	159·7
Towards mid-day .	85	147	199	211	26·7	49·6	73·1	71·5
Afternoon . .	224	347	391	474	70·3	117·1	143·6	160·7
Evening . .	88	125	148	180	27·4	42·2	53·5	61·0
Night . . .	431	505	579	647	136·3	170·4	212·6	219·3
Hour unknown .	2,036	1,373	877	861	639·1	463·4	322·0	291·9
Total .	3,186	2,963	2,723	2,950	1000·0	1000·0	1000·0	1000·0

Of the six divisions of the day, the night would seem to be that which is most favourable to suicide in Prussia, but it is necessary to observe that the diurnal hours are sub-divided into three secondary parts, the forenoon, noon, and afternoon; adding these together for the four years, they would give the higher proportions per thousand, of 175, 296, 375, 392, to those happening in the night. Let us also note that the early morning (*bald nach Sonnenaufgang*) may be considered as part of the night, whilst the evening (*Abends*), among the inhabitants of civilized countries, makes a continuation of the day; this addition to the day renders still greater the superiority of the diurnal over the nocturnal hours, precisely as at Paris and Berlin.

But on examining the *hours* separately, this daily distribution of suicide will be seen still better. We give here the actual numbers of 1,993 suicides in Paris (Brierre de Boismont), the proportions per hundred calculated on a still more numerous series of cases (Guerry), and the data for the two years 1871–72 of the Canton of Berne,

forming a much smaller series than the preceding, but in singular agreement with them.

Hours A.M.	Paris (1834-43)	France (Guerry)	Berne (1871-72)	Hours P.M.	Paris (1834-43)	France (Guerry)	Berne (1871-72)
Midnight	65	77	2	Noon	123	32	
1 o'clock	51			1 o'clock	79		7
2 "	49	45		2 "	117	84	
3 "	45		11	3 "	144		10
4 "	50	58		4 "	89	104	
5 "	70			5 "	86		
6 "	102	135		6 "	67	77	
7 "	102		9	7 "	89		9
8 "	126	110		8 "	69	84	
9 "	104			9 "	69		8
10 "	110	123	10	10 "	62	71	
11 "	81			11 "	44		

The hours of the maximum are from 6 A.M. to 12; at first there is a decrease in the hours P.M., then an increase which falls away from 3 to 6 o'clock, after which the number of suicides continues to diminish regularly in the evening hours until midnight; however, the *minimum* is not reached until the hour preceding the rising of the sun. The daily distribution of suicides is parallel to activity in business, to occupations and work, in short with the noise which characterizes the life of modern society, and not with silence, quiet, and isolation. Petit and De Boismont then justly note that the influence of the diurnal hours is shown also in the predominance of those months which have the longest days, and are precisely, as we see, June, May, and July. Thus all the influences which we are studying join together and mingle in one single and efficient synthesis, that is to say, the dependence of man upon nature.

CHAPTER III.

ETHNOLOGICAL INFLUENCES.

NATIONS are distinguished by organic and moral characteristics, the study of which forms two new sciences, already flourishing and with a great future in store, anthropology and ethnology. The former is, perhaps, among all the experimental sciences, that which has gained most from the application of the statistical method. In truth we possess only figures and averages calculated on large series of individuals, on the distinction of race by stature, circumference of the skull, dynamometry, and weight of the body; and the most important anthropological characteristics would escape us if they were not rehabilitated in a concrete form, and one capable of comparison, under a numerical garb. On the other hand, ethnology has up to this time made little use of statistics; but if it is true, as Broca says, that its aim is 'the study of the human race, as well in respect to the similarity and dissimilarity of morphological and genealogical nature, as in respect to their psychological, social, and moral conditions, and to the history of their changes,' it is now time that ethnologists, in classifying and determining the various nations and the various branches of the human species, should make use of the positive and fruitful results of sociology. This science in fact, with the comparative statistics of crimes, marriages, and suicides, demonstrates

every day new differences amongst peoples much deeper than merely the length or breadth of the skull, or some few rules of sound in language.

§ 1. *Race, stocks, and nationality.*

That each country possesses specific racial characteristics is made evident by all the researches of this century. The influence of race is felt in the returns of the population, as it is shown in anatomical and physiological characteristics; thus also for suicide we find that the zone of predilection corresponds to countries inhabited by people differing in their political constitution, but allied by race, religion, and culture. The idea indeed of a true ethnic specificness of voluntary deaths, which was expressed by Oettingen and Wagner, really agrees with the examination of statistical data.

The highest numbers are given by countries of Germanic race, and the two stocks, German and Scandinavian, divide this supremacy. The centre of the purest German stocks is Saxony, the old and powerful land of the Teutons, and it presents a very high average. Equally great is the proportion in Lower Austria and Salzburg, which are almost pure German, in the Saxon circles and in those of Liegnitz, Potsdam, Merseburg, and Magdeburg of Prussia, in the German Cantons of Switzerland, and every place in which the German element prevails. The Scandinavian stock gains its maximum in Denmark; in Sweden and Norway it also maintains a high average, although the severe climate of their northern regions neutralizes the influence of race. The suicidal tendency is much smaller in the Anglo-Saxon stock, separated as it is by long ages from the great German mother, and in a large measure modified by the mixture of people of another stock

(Bretons, Gauls, Romans, Cambrians, Picts and Scots). The diminished proportion afforded by the English people depends perhaps upon other causes, especially economical and psychical ones, but also on the addition of the Celtic-Roman to the Germanic element. In fact after the peoples of German and Scandinavian stock, come those of southern Europe, so closely united by ties of origin, language, and history. Italy, the centre and mother of Latin civilization, although crossed by so many peoples, is always one in race and aspirations, and the Iberian peninsula, placed almost outside the great migratory current of the prehistoric and historic peoples, represents the Italo-Celtic race in its greatest real purity, and with respect to suicide they may be placed on the same level, far from the countries which were longer subject to Germanic influx. Amongst which last France and Belgium approach on one side, that to the north, the proportional averages of the purely German countries, and on the other, to the south, those of the Celto-Latins. Nor can such divergences between the two averages of the Gallic regions surprise those who think of the remote, continuous, and also in modern times the persistent invasion of German ethnic elements which have immigrated there, especially in the valleys of the Scheldt, the Seine, the Rhine, Somme, Meuse, even to that of the Loire. Among the last in the European scale of suicide then are the populations of Slavic origin—that is to say, the Russians, Croats, Bulgarians, Slavonians, Galicians, and the populations which have issued from the Ural-Altaic stock, such as the Magyars, Finns, and the Swedes of the upper Norrland.

Both Wagner and Oettingen have each already given a scale with regard to suicide of the European races, but both are too comprehensive; nor do they always compare corresponding periods. It therefore seemed useful to

reconstruct the table of ethnic influence on suicide, taking for examination more recent and uniform periods. (Table XIII.)

We do not give our ethnological differences of European countries as the most exact; the mixture of races does not allow of an exact place being given to many actual half-breed (*meticcie*) populations in the classification of the human race. Notwithstanding a certain artificial approach, often based only on historical mutations, notwithstanding also that countries of mixed peoples, the Austrian-Hungarian and European orientals for example, have been entered too concisely in one of our categories, yet the differences which follow from this amongst the various races is remarkable. The diminishing scale of numbers would be thus: Germans of the south and centre, or High-Germans —Germans of the North, or Low-Germans—Scandinavians —Celto-Romans—Anglo-Saxons—Magyars — Flemings— Slavs of the North—Finns—Celts—Slavs of the south and Slavonians—Italico-Romans and Ladini. The peoples with the highest average inhabit the central regions, the chosen zone of the suicide, and after these the other peoples, are arranged almost in direct ratio with the ethnical distance which separates them from the Germanic nations; thus the Germans and the Latins will be found at the two ends of the scale, for, although having come forth from the common Indo-Germanic stock, in the descent of European peoples they will be found from time immemorial at the extremities of their two principal and most distant branches. The white race which was destined to gather up in itself all the progress of human kind was divided from the first into two branches, the Aryan-Romanic and the Slav-Germanic. From the first issued, besides the Aryans, the Greco-Romanic people (Greeks, Albanians, Italians, Celts, and Brettoni); from the second

TABLE XIII.—*Synopsis of the Ethnological differences of Suicide.*

Races and Stocks		Countries	Population	Annual number of suicides	Per million: General average	
Germanic Peoples	Scandinavia	Denmark (1866-75)	1,784,741	468	268	127·8
		Norway (1866-73)	1,741,621	131	74·5	
		Sweden propr. and Gothia (1866-75)	3,536,799	297	84	
	Germans of the North (Low-German)	Mecklenburg (1871-75)	553,754	95	167	150
		Lauenburg (1858-65)	49,704	8	156	
		Oldenburg (1865-70)	315,995	62	198	
		Prussia and its conquests (1871-75)	25,772,562	3,342	133	
		Hamburg (1873-77)	388,618	113	301	
		Bremen (1875-76)	141,848	36	245	
		Ducal Hesse (1871)	852,843	101	160	
	Germans of the South	Bavaria (1871-76)	5,023,904	450	90	165
		Baden (1871-75)	1,506,531	231	157	
		Würtemberg (1872-76)	1,881,505	294	162	
		Kingdom of Saxony (1871-76)	2,760,342	752	299	
		Saxe-Altenburg (1858-65)	141,839	(42)	303	
		Saxe-Meiningen (1860-61)	172,341	(37)	264	
		Salzburg (1873-77)	153,159	19	120	
		Upper Austria (1873-77)	736,557	81	110	
		Lower Austria (1873-77)	1,990,708	539	254	
		Styria (1873-77)	1,137,990	115	94	
		Carinthia (1873-77)	337,694	34	92	
		Alsace-Lorraine (1856-60)	1,531,804	230	97	
		Cantons—German-Swiss (1876)	1,357,424	224	165	
	Anglo-Saxon	England (excl. Wales) (1872-76)	21,290,596	1,538	72	70
		United States of America	38,000,000	—	(32)	
		South Australian Colonies (1872-76)	208,950	19	90	
	Flemings	Netherlands (1869-72)	3,618,016	146	35	50
		Flemish Prov. of Belgium	1,342,297	98	74	
		Circ. d'Aurich of Hanov. (1871)	195,394	—	100)	
Celto-Romans (Latins?)	Celts	Wales (1872-76)	1,421,670	60	52	30
		Scotland	3,360,000	—	35	
		Britain (1872-76)	2,947,348	221	75	
		Ireland (1831-41)	7,800,000	79	10	
	Celto-Romans	France (1871-75)	36,102,291	5,256	150	116
		French Prov. of Belgium (1858-60)	3,433,000	119	35	
		French-Swiss Cantons (1876)	1,401,420	284	200	
		Northern Italy (Cisalp.) (1864-76)	11,813,515	500	46	
	Western Romans	Peninsular and Lower Italy	14,248,157	381	26	27
		Spain (1866-70)	16,302,625	—	17	
		Italian-Swiss Cantons	211,401	21	90	
	Eastern Romans	Transylvania (1873-77)	2,115,124	—	80	(50?)
		Roumania	4,000,000	—	(25)	
Slavs	Slavs of the North-West	Russia (1875)	69,354,541	1,771	30	42
		Bohemia (1873-77)	5,140,544	863	168	
		Moravia (1873-77)	2,017,274	289	136	
		Galicia-Buckovina (1873-77)	5,958,083	589	98	
		Carniola (1873-77)	466,334	22	46	30
	Slavs of the South	Croatia and Slavonia (1864-65)	876,009	—	80	
		Dalmatia (1866-61)	456,961	—	14	
		Military Frontiers (1860-61)	593,232	—	31	
Ural-Alt.	Magyars	Hungary (1864-65)	9,900,783	—	52	52
	Finns and Letts	Finland (1869-76)	1,732,621	56	31	40
		Norrland (1861-70)	529,128	31	62	
		Russian Baltic Prov.	3,637,000	—	(41)	
	Slavo-Mongols	South-East Russia or Caspia	—	—	(51)	(51)

came forth on the one side the Slav-Letts (Slavs of the South, Russians, Western Slavs, Czechs, Poles, Lithuanians, and Old Prussians), and on the other side the Germanic races (Scandinavians, Goths, Germans, Frieslanders, Saxons, Anglo-Saxons, and Dutch). Their various affinities are revealed by the large average of suicides.

The low position in point of numbers held by the English peoples, with regard to suicide, in comparison with the Germanic, whilst the first place in the civilized world as regards power and riches belongs to them without dispute, is astonishing; it is not modern Rome, it is not England, which gives the greater number of suicides. Admitting that in statistics we have to deal with deficiencies and want of exactness (we spoke of this in Chap. I. § 1), it is not possible that, although correct, we should never have the German averages lower if it were so; nevertheless the Anglo-Saxons undoubtedly proceeded from the same stock as the Saxons, Dutch, and Low-Germans. But the history of their successive migrations into Britain shows us the Anglo-Saxons as conquerors, more by bravery than numbers, of the old Brettoni, Gaels, Picts and Scots, with whom all the conquerors of the country, from the Angles to the Romans and Normans, constitute a half-breed (*meticcio*) people, with a mixture of Celtic and Germanic elements, but the first certainly predominating, as may yet be seen by the greater affinity of the English average of suicides with that of Brittany.

The divergence then between England and the countries where the Celtic or Gaelic race remains most pure, that is to say, Scotland, Ireland, and Wales (the Gaelic-Celtic there in 1861–71 were respectively 13, 23, and 57 per cent.) will prove the influence of the Germanic element infiltrated, especially in the first of these. And it is not to be wondered at if, under diverse climatic and

social conditions, the English colonies in North America, producing a race so distinct from the mother-stock as that of the Yankees, still reveal in the excessive average of suicides, so great a difference from their original European brethren. Might not even the inferiority of numbers of the Flemings, although of Germanic origin and habits, be attributed to the powerful influence of the climate and to the persevering and age-long struggle against the ungrateful nature of their soil which has modified the physical and moral character of their race?

Ethnology and the history of various peoples of Europe may also explain the other differences in the averages of suicides. Among the Scandinavian people, that which maintains the highest average is the Danish, which continues still the most closely bound both in character, language, and geographical contiguity to the common mother, Germany. On the other hand the two peninsular nations of the North issue from the addition and mixture of the Scandinavian race with the primitive population of Finnish origin, especially in the northern regions of Sweden; whence perhaps the decrease of their suicidal tendency. Again, amongst the countries which are denominated German in our synopsis, very few can be reckoned free from ethnical intermixture; but it is worthy of note that where the mixture with other races is greatest, there the largest exceptions in the averages of suicides are found. This is proved above all, on the one side by the superiority of numbers in the Saxon countries, their inferiority on the other hand in the Austrian provinces; it is still more clearly proved by confronting the various divisions of the German States in which the average proportion of suicides is always found in direct ratio with the proportion of Germanic blood in their inhabitants. This statistical law cannot be better proved

than by comparison of the different countries of the Austro-Hungarian Empire.

Austria-Hungary, whether on account of its political constitution or because it is within most distinct ethnical zones, offers an extraordinary mixture of people, languages, and customs. In that vast part of Europe the most ancient and most recent races are stratified and mingled together. Its primitive Thracian-Illyrian inhabitants, such as the Rhætians, the people of Carniola, Dalmatians, Goths, Dacians, Pannonians, the Livornese, were drawn to each other by the invasions of the Celts, Boii, and Gauls, and then of the Germans and the people of the Marches, then again by the Slavs and Huns. With the Romans the Italian element rose again, which there transformed the ancient mountaineers of Rhætia into Ladini, and the populations of Dacia and Pannonia into Romano-orientals. In the middle ages were added to these already numerous peoples the new Germanic races of the Heruli, Goths, Rugians, Lombards, and Franks; later came Saxons as far as Transylvania, and the Slavs of the Czechs, Slovacs, Poles, Ruthenians, Croatians, Slavonians, and Servians: afterwards from the east the Jews emigrated and multiplied there, and from the north the Finns made an invasion as well as the Avari and Magyars; lastly the Bulgarians, Albanians, Greeks, and Moldo-Walachians were driven from the south by the Turkish conquest to be still more intermixed. All these different races were not fused together as was the case in North Italy, France, or England; on the contrary they remained divided, joined certainly, but isolated one from the other by reason especially of language and religion. It is true that towards the north the so-called Slavs of the north were predominant, and thus it is that Moravia and Bohemia give a lower average of suicides than the Germanic

nations; to the west the Germans, with a very high proportion in upper and lower Austria; to the south the southern Slavs, with a small number even where they are in the majority, namely in Croatia and Dalmatia; in the centre the Magyars, with an intermediate intensity according to the districts and banats, the oscillations of which, however, we do not know. But this preponderance of the four chief ethnic elements is not so exact as would appear; it is necessary to reflect that it is impossible to tell the limits of this division, because the attempts of the Austrian statisticians and ethnographers are based upon language and not upon race. In the meantime, without entering into the inextricable confusion of idioms and peoples, let us content ourselves with summing up the result of our investigations based on the census according to language (Ficker).

Out of eighteen Austro-Hungarian countries, four, lower and upper Austria, Salzburg, and Tyrol, contain a proportion higher than 90 per cent. of Germans, and give an average of 143 suicides per million; five, Carinthia, Styria, Bohemia, Silesia, and Moravia, contain from 25 to 75 per cent. of Germans, and have an average of 134 per million; finally, the other nine have all smaller proportions of the Germanic race, and stand at the bottom of the scale of suicides, that is to say, with an average of 55 suicides per million. The race which manifests most influence after the German, although in a negative sense, is the southern Slav (Slavonians, Croats, Servians, and Bulgarians); the countries where the Slav blood preponderates, Dalmatia with 88·9, Croatia-Slavonia with 94·5, the Military Frontiers with 99·5 per cent., give also the lowest proportion of suicides, and it is noteworthy that it is equal to that of the Slavs of the north-east, that is, Little and Great Russia, with which in general the Slavs of the

north have more anthropological affinity, excluding perhaps the Russians of Galicia. In truth where these latter Slavs are in the greatest number, the difference between them and the pure German people in the matter of suicide is not great; Bohemia, Moravia, and Buckovina give a higher average, higher even than that of many countries of Germany. As to the diminution of suicides in Galicia, we shall see how that may be attributed to the considerable number of Jews who live there (out of two millions and a half in 1869 there were 576,000 Jews, that is more than a *fifth*). The divergence between the western Romans, that is to say, Italians, Ladini, and Friulians, and the eastern, or Dacians, Albanians, Transylvanians, Zingari, Greeks, and Roumanians, deserves attention. Whilst the Latin race of the west, as in Italy, Spain, Istria, Trieste, and Dalmatia has little tendency towards suicide, those Latins on the contrary who are modified by the east, and who ought to be called Romanesque (*Romaunsch*) rather than Romans, seem to raise the number of voluntary deaths by their presence, which will be proved by the returns of Buckovina and Transylvania.

Prussia also offers remarkable differences in its various provinces, according as they have more or less of the German element. It is indeed known that Old Prussia was at first only in part inhabited by Germanic peoples; all the Baltic region of the east, from Pomerania and along the Vistula, was occupied by Slav peoples of the Lettish branch (Slavo-Letts and Baltic-Slavs); the Lithuanians, Letts, Prussians, and Curi, are collateral branches of the same stock whence issue the Slavs of the south and south-east (the Croats, Slavonians, Russians, and Ruthenians), and the Slavs of the west (Czechs, Poles, and Servians). The western and southern limits of this

great Slavo-Baltic zone become later on mixed with the people of the German stock, but it has been only by its conquests to the west and south that Prussia became included in the number of Germanic countries. And it is precisely those provinces where the German element is least, that give a lower average of suicides:

Provinces and Circles	Per 100 inhabitants (census 1867)		Average of suicides (1856–60)	Provinces and Circles	Per 100 inhabitants (census 1867)		Average of suicides (1856–60)
	Germans	Non-Germans			Germans	Non-Germans	
Posen	45·5	54·5	68·7	Breslau	95·05	4·95	199·0
Posen	41·0	59·0	76·6	Liegnitz	96·43	3·57	235·0
Bromberg	53·5	46·5	59·7	Brandenburg	97·91	2·09	176·0
Prussia	80 6	29·4	99·7	Frankfurt	94·85	5·15	160·0
Marienwerder	62·2	37·8	72·1	Potsdam-Berlin	99·76	0·24	194·0
Gumbinnen	63·3	36·7	82·3	Köslin	99·24	0·76	101·0
Danzig	76·1	23·9	103·0	Schleswig	84·99	15·01	—
Königsberg	79·6	20·4	145·0	Aachen	97·74	2·26	27·2
Silesia	75·2	24·8	152·0	Other Provinces	99·95	0·95	103·0
Oppeln	36·7	63·3	53·6	*Prussia*	88·08	11·92	122·0

The non-German inhabitants are Lithuanians in Gumbinnen and Königsberg (600 per 1,000); Poles in Oppeln (601 per 1,000), Posen (593), Bromberg (469), Marienwerder (378), Danzig (273), Gumbinnen (219), Königsberg (171), and also in Breslau, Berlin, and Köslin; Czechs in Oppeln and Breslau (20 per 1,000), Danes in Schleswig (150 per 1,000); finally Wends in Liegnitz (34 per 1,000), and Frankfurt (50). The presence of the Slavo-Polish element is the evident cause of the diminution of suicide in the eastern provinces of Prussia; especially in the circles of Oppeln, Bromberg, and Posen, where they preponderate. Nor less noteworthy is the fact that the district of Aachen, where there is a large colony of Walloons (French people from the Ardennes), gave in 1856–60 hardly twenty-seven suicides per million, whilst the rest of Rhine Prussia had fifty-three and Westphalia sixty-three.

Of Switzerland the Cantons which are the most exempt

are the Italian, while on the contrary the German and French are the most subject to voluntary deaths.

On the other hand, the increase of suicide in the provinces of Belgium where the German element prevails is not ascertained. It is true that in the following synopsis the numbers refer to the census according to languages (1866) and not to the ethnic origin, and that the Flemings are morally very different from their near relations the Germans; but in Luxemburg, where the Germanic element constitutes almost the *seventh* of the population, the average is lower than that of the whole State.

Provinces	Number of suicides per million (1858–60)	Proportion per 100 of the inhabitants			
		Flemish	French	French and Flemish	Speaking German only
Eastern Flanders	36·8	92·4	1·0	6·4	0·13
Antwerp	100·8	92·4	0·8	6·1	0·42
Limburg	24·4	88·8	4·5	6·4	0·29
Western Flanders	41·1	88·0	4·1	7·6	0·13
Brabant	68·6	56·1	26·6	16·6	0·88
Liége	34·4	3·9	89·6	3·0	3·45
Hainault	40·1	1·8	95·8	2·1	0·14
Namur	33·3	0·1	99·1	0·5	6·22
Luxemburg	35·5	0·1	84·7	0·2	15·10
Belgium	47·0	49·8	42·3	6·4	1·23

However, adding together the five provinces where Flemings prevail, the aggregate average would be 56·7 per million, whilst the four French would give only 37·7 per million.

In the districts of the Grand Duchy of Baden also, where the French element is infiltrated, the proportion is less than in the purely Germanic; in the former it was 89 per million, in the latter 134 per million, in the period 1856–60.

From this it may be perceived that the purer the German race, that is to say the stronger the Germanism of a country, the more it reveals in its psychical character an extraordinary propensity to self-destruction. Wagner has

given the following scale for various peoples of the German race; Saxons 233, Slavo-Saxons 163, Lower Saxons 157, Hessians 134, Allemanni 98, Franconians 96, Suabians 91, Frisians 79, Czech-Germans 75, Slavo-Prussians 72, Westphalians 64, of the Rhine Country 60, Bavarians 50, South Slav-Germans 30, Alsace-Lorrainers 27. The German averages of these populations oscillate between the maximum of 268 per million of the Saxon countries, to the minimum of 20 of the Slavs of the south.

The influence of other races, especially of the Slavic, is made sufficiently clear by what is said above. Slavism tends to lower the average of suicides as Germanism elevates it, and it is worthy of remark that the Finnish-Altaic race, showing a stronger inclination to voluntary death, exercises over the Slavic peoples of the north an analogous if not an equally powerful influence. Finland, for example, although in the north and without large cities (the largest is Helsingfors, with 32,000 inhabitants), gives a higher average than Central Russia; the Baltic Provinces, Livonia, Esthonia, and Courland, since 1819–20, according to Bulgarin, paid a heavier tribute to suicide (forty-one per million) than the neighbouring Governments (from thirty-two to scarcely fifteen), and finally the average reached its maximum (fifty-two per million) in the same period in the south-east of Russia, that is in the Governments of the Steppes, Astrakan, Crimea, Caucasians, and the Cossacks of the Don, where the Finnish-Mongols' very large element is represented by the Kalmucks, Nogai, Helots, Ciuvaschi, Tartars, Basques, and Kirghis.

The results which are obtained from the study of the influence of Latinism are more contradictory. The averages of the peoples comprised under the common and improper denomination of Latins or Romans, oscillate

between 331 at the Isle de France and the Orleannais, to eight in Calabria and thirteen in Portugal, while, giving due weight to the powerful influence of different civilizations, of the various religious beliefs, of climates, it must still be affirmed *à priori*, that the origin of these populations must have been very distinct, if attention is paid merely to the high number of voluntary deaths. And the study of the ethnology of France and Italy gives us the key to solve this problem.

We are not writing a book on anthropology: we shall limit ourselves therefore to investigating the various French origins, which though in some parts still obscure, are yet on the whole sufficiently clear. The famous *Celtic* question may be held as decided, especially by Broca, Lagneau, Boudin, Bertillon, Bertrand, Lemière, and d'Arbois, although archæology, language, ethnology, history, and, let us add, even anthropology, do not give corresponding and indisputable results. The actual French population descends in direct line from two groups of Gallic peoples, called by Julius Cæsar *Celts* and *Belgæ*, and belonging to two different races. The Celts occupied France at the first Indo-Aryan invasion, driving away to the south-west the indigenous population (Ligurians and real Basques) and mixing themselves with them in Aquitaine (Gascony). In more recent ages the Belgæ or Belgo-Cymri were driven by the Scythians into Western Europe, and conquered the Celts in the north-east of Gaul. The anthropological characters of these two ethnical elements is even now found more or less pure, more or less modified by successive crossings, in the respective regions that they occupied at the Gallo-Roman epoch. The race of the Belgæ or Cymri, Cimbri, Cymmerii, were tall of stature, had fair hair, light eyes, a long skull, and formed part of the great Germanic family; the

Celts on the contrary were smaller, with dark hair and eyes, and brachycephalic. The boundaries and relations of the two races were as follows; the Celtic race at the time of Cæsar did not extend further north than the Seine and the Marne; it had probably formerly occupied the south part of Belgic Gaul, where however the Cymri from beyond the Rhine had ended by supplanting it and absorbing it in an unequal admixture. The Cymric race, on the other hand, ruled the region north of the Seine, between the Rhine and the English Channel, and they were mixed with the Celts in a narrow intermediate zone up to the Loire and the Rhône, excluding the ancient Brittany and the country of the Diablintes (*Naeodunum*). To these two fundamental elements, so to speak, there were added, in the course of centuries, others by means of barbarian immigrations and intermixtures, all however of secondary importance and great numerical inferiority; and since the fair nations who invaded France have always followed the course of the Rhine, the mixture has been greater towards the north. The regions where the two Gallic races are the most crossed are the following:—to the south on all the shores of the Mediterranean and the basins of the Rhône and the Isère (Provence, Dauphiny, and eastern Languedoc), the darker Celts were modified during many centuries by contact with innumerable Roman black-haired colonists, and by the slow and continued invasion of the northern or fair element which, following the left bank of the Rhône and by the Consular road went towards the great Roman cities of Narbonensis (Volgi Arecomici especially, and later on Burgundy). In Aquitania, the dark race of the Aquitani, Romanized for four consecutive centuries, became Germanized under the prolonged dominion of the fair Visigoths. In the centre, in Burgundy, the Celts mingled from the first with many Cymri, then with

Romans, and lastly were Germanized by the Burgundian element. To the north-east, between the Meuse and the Rhine, in the capital of the kingdom of Austria, the Cymri felt still more the German influence of the Franks and of all the barbarian invaders from beyond the Rhine. To the north, between the Seine, the Meuse, and the Scheldt, the Germanic conquerors established themselves in considerable proportion among the Cymri who had preserved their nationality almost unmixed down to the Merovingian time. In Normandy, where the Celts and Cymri were already mixed before the coming of the Franks, the Normans introduced new and numerous contingents of tall stature and fair type. The place where the Cymric type has kept itself most pure is on the north side of the Seine, notwithstanding intermixture with the Volcæ Tectosages, Tungrians, Eburones, Alani, Russians, Huns, Saxons, Picts, Agathyrsi, Frisii, Sarmatians, Teifali, Burgundians, and the Visigoths. The Celtic type on the other hand has been preserved almost unadulterated in the centre of France, in the valley of the Upper Loire, from the Rhône to the Cevennes and to Saintonge, where no foreign invasion ever settled except the pacific Visigoths, and in the Alpine regions whose sterility and severity did not attract foreigners. This type is less pure in Brittany, where before Cæsar's time Cymri immigrated, and other Cymri from Great Britain in the fifth century. Lastly let us note that in the Pyrenean region the Iberian element remains among the Catalans of Roussillon and Ariège, and that of the Basques in Béarn and the Bigorre mountains.

It is not to be wondered at that in the north of France, where the fair or Germanic type predominated, there also was the largest proportion of suicides. Comparing our map of suicides (Table III.) with the ethnical ones of statures of Broca (*Nouvelles recherches sur l'Anthropolo-*

gie de la France, in the *Mém. d'Anthropol.* t. i. c. i. p. 445) an almost perfect correspondence in the distribution of colour is obtained, or the ethnic zones (marked in our map by thick lines) correspond to those of the regions of differing intensity of suicide.

The regions of France where the average is less, that is in Auvergne, Brittany, Gascony, Roussillon, and eastern Languedoc with Béarn, are those also where the smallest Germanic element enters; whilst all the north, from Normandy to Franche-Comté, and all the eastern Mediterranean zone, furnish the highest numbers of suicides. And among the departments of Aveyron, Cantal, Lozère, Corrèze, Morbihan, and the Côtes du Nord, where the Auvergnese and the Breton-Gauls still bear traces of the ancient Arverni, Bituriges, and the Armoricani (Bretons) of the Celtic race, the suicides are few. This explains why Finisterre, invaded by the Cymri-Britons of England, gives almost twice as many as the other departments of Brittany; the Pyrenean region has a predominance of Basques, Ligurians, and Celtiberians, therefore it gives a low average: and finally for the same reason the departments along the left bank of the Rhône from the Mediterranean to Lyons, mark with a darker tint the ancient immigration of the fair race from the north of Gaul to the Roman Narbonne.

Turning now to Italy, we will say in the first place that it has been a free and united kingdom for only a few years, and has suffered during the whole historic period many immigrations of nations, owing to internal dissensions and the greediness of foreigners. But the ethnological difficulties, great in France, grow larger, if that be possible, for Italy, although it alone of all the civilized parts of the world shares with Greece the glory of possessing a history anterior to the ten centuries of the vulgar era. The most

diverse and opposite races met, were mixed up, settled, assimilated and fought on Italian soil, nor at the present day, as far as we know, does the type of its primitive populations remain pure in any part of Italy, not at least as is the case in Auvergne, Biscay, Roumania, Lapland, and in Wales. History is almost useless to us, because we are ignorant of the physical characteristics of many, nay of most of the ancient races, that is to say of their true place in ethnology. It is certain that Italy has been at all times crossed by the two principal types of the European nations—the dark and the fair—which have left their traces there; through which we may perceive that to the north the fair race of tall stature predominates, whilst to the south and in the islands the dark and shorter statured prevail. Previous to all the invasions of fair or Germanic people, Italy was inhabited by the Liguri, who were akin to the Celts and Basques; these latter nevertheless were small, dark, and brachycephalic (see Nicolucci, Pruner, and d'Arbois); and before the Liguri by the Iberi, who were probably long-headed, but whose origin is wrapped in obscurity, so that without any other name Hovelacque would distinguish them by that of the *Western Mediterranean race*. Just as the Iberi were driven away towards the west by the Liguri, so these in their turn were surrounded and conquered by Umbrian Latins, who proceeding perhaps from the same stock as the Celts and those of the Danubian valleys, seized upon three-fifths of Italy, pushing back to the south the Siculi, a people of Ligurian origin, and then developing the Oscan and Latin forms of civilization, which were to have such different importance, although of the same language and ethnical root. In the north of Italy we find the Venetians, certainly allied to the Thracians, the Illyrians, and those Cymmerii who inhabited the north of France and

Belgium (Galli-Belgi or Cymri), and in the centre the Tursani and the Pelasgi, whose Illyrian origin is now at any rate disputed, whilst the opinion of those who consider them akin to the Phœnicians and Egyptians gains force. The later great immigrations, especially of the northern or Germano-Slavic peoples, fair in type and tall of stature, by the Gauls into Lombardy, the Ostrogoths into Russia, stopped by choice in the valley of the Po, and the farther we go from the great Paduan plain the fewer invasions we hear of until, having arrived at the centre of the peninsula, we find very few within the historical period. On the other hand they were more numerous to the south, where the Phœnicians, Greeks, Carthaginians, Latins, Albanians, Visigoths, Saracens, Numidians, Lydians, Normans, French, and Spaniards penetrated in the course of ages. The immigrations, however, of which we know nothing are much more numerous than those of which history tells. But at any rate there, where only history shows us the larger mixture of the Germanic or northern element with the primitive Italian race, statistics show clearly the influence of race by the high number of suicides. The minimum is found where the Germanic element has never penetrated, or if it did penetrate always remained infinitely lower in number, as in Calabria, Sardinia, the Basilicata, and in the Abruzzi. The average rises indeed in Puglia, formerly occupied by the Normans, and in Sicily, where the prolonged intermixture with the Vandals, Normans, French, and Flemings undoubtedly introduced a larger northern proportion than in the extreme end of the Italian peninsula.

All these ethnological comparisons have, we repeat, only a relative value; in fact they refer to a psychological characteristic, namely, the different inclination to suicide; and the moral characteristics of nations are often rather

the effect of their social and political constitution than of their ethnological origin. Wagner says that the national differences in the matter of suicide are stronger than the ethnic, and this is in great part true; but it would be well first to agree as to the meaning of nationality. For such understanding has not yet been attained, notwithstanding the powerful efforts of the school of law led by Mancini, Mamiani, and Palma, and as the discussions prove which arose at the Statistical Congress at Stockholm after the lectures of Keleti, Glatten, and Ficker. In modern times peoples are seen to rise in the name of the principle of nationality, but at the same time this nationality is not expressed by affinity of race, by uniformity of laws, nor by geographical boundaries, so that sometimes peoples different in these respects are united in nations, and others having these grounds of affinity fight for a distinct nationality. That every country and State possesses a specific average of suicides follows from what has been already said; but a constant difference between different States does not exactly mean a national specificness in the matter of suicides, because even where nothing is wanting to make a people into a nation, as in Italy, France, and England, there are constant and very great divergences between regions and provinces which arise from complex reasons and neutralize the influence of the nationality. The political bond which explains the nationality of modern peoples must therefore be placed amongst the less active general influences on the number of suicides. If the criterion of nationality consists in language as Boeck says (*Die stat. Bedeutung der Volksprache als Kennzeichen der Nationalität*, 1870), and as Palma provisionally accepts (*State Archives*, 1876), and Czoerning, we should arrive at a more certain result.

The following table gives the differences of nations

according to the various groups of languages (Hovelacque, *La Linguistique*, 1876), with the maximum and minimum proportions of suicides and their averages :—

	Maximum proportion	Minimum of suicides	Average per million
People speaking the first group of the Italian languages directly derived from the Latin (Italians, Spaniards, Roumanians, Portuguese, Corsicans, Swiss of the Ticino)	74	13	31·5
People speaking the second group of Italian languages with an infiltration of Celto-Germanic elements (French, Belgian, French Swiss)	260	35	130·0
People speaking Scandinavian, or the first subdivision of the Germanic branch (Danes, Swedes, Norwegians)	268	74	127·8
People speaking the languages derived from Low-German (Frisians, Flemings, Prussians, English, Germans of the North)	301	35	148·0
People speaking the languages known by the name of High-German (Saxons, central Germans, Bavarians, people of Posen, Austrians, Styrians, Carinthians, German Swiss, Westphalians, &c.)	303	90	165
People speaking the Slavic idioms of the south-eastern branch (Russians, Galicians, Sloveni, Croats, Dalmatians)	98	14	40
People speaking the Slavic idioms of the western branch (Czechs, Moravians, Poles)	158	98	(130)
People speaking the Finnish idioms, or second branch of the Ural-Altaic (Finns, Magyars, Baltic Russians, &c.)	62	31	45

§ 2. *Anthropological Characteristics.*

The study of the influence which the anthropological characteristics of a people may exercise on its propensity to suicide, although to all appearance governed by over subtle reasons, is however justified by the important relation which the physical has to the moral nature of man ; and certainly without believing that a low stature or a long skull reveals the fundamental nature of the mind and explains the reason of a suicide, whether it is a crime or an access of madness, we must acknowledge that to estimate the influence of morphology upon cerebral physiology we have no other guide than corporeal characteristics. On the other hand, comparative statistics leading to corre-

sponding results answer every objection by anticipation. Let us first take stature for examination.

With regard to the aggregate of Europeans it will be conceded at once that the northern and central are taller than the southerns, which would correspond to the distribution of suicide; in fact, drawing a line across France from St. Malo to Ain, and following the boundaries of Germany, the Lithuanians and the Northern Russians (the Finns and Lapps being excluded) reach to the North a stature always above 1·65 metres, whilst farther south the average height is from 1·64 to 1·60. Whoever then starts from Norway, which gives the maximum stature, and descends to the south, passing over England, Belgium, and France, or over Denmark, Germany, and Austria, to reach Sicily or Spain, will perceive the stature of the population diminish progressively from 1·72 metres to 1·60, and in general also the averages of suicides from above 100 to below 20, and to the north it will be observed that the Finns and Lapps with low statures of 1·61 and 1·53 commit suicide but seldom. But if the various nations are considered separately, this correlation between stature and suicide is often wanting; for example, Germans are the smallest among the fair races (from 1·69 metres to 1·65) and stand first as regards suicides; the Scotch (1·71) and Irish (1·695) are taller than the English (1·69), but they are less self-destructive; the same may be said of the Belgians (1·68) in comparison with the French (1·65). The correlation fails entirely among the Slavs; the Russians (1·67 according to Schultz) are of greater stature than the eastern Slavs (1·63), the Ruthenians (1·61), and the Magyars (1·63), but they do not commit suicide so often. Stature indeed, which has aided ethnology so much in the hands of Broca and Lambroso, can only be used by us as an *ethnical criterion*, to determine, that is

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to say, the influence of races, and this is the aim of our enquiry. Now it is easy to see that in the countries where the fair tall people of Germany, or the Tedeschi, with a strong inclination to suicide, prevail, the bodily height and the number of voluntary deaths increase *pari passu*, as for example in Italy and France. On the other hand, in those countries where the tall fair people of Slavo-Sarmatia, or Slavs, with a slighter suicidal tendency, predominate, the stature increases, but the proportion of suicides is lower; for example in Austria-Hungary.

With respect to Italy, by comparing the geographical distribution of suicide with that of stature, the following is the formula by which their relation may be expressed: *The frequency of suicide in the various parts of Italy generally is in a direct ratio with stature, and the inclination to self-destruction increases from south to north as the stature of the Italians gradually increases.* In the following table we place by the side of the average proportion of suicides in 1864–76 the average height of the conscripts levied in the two periods 1846–51 and 1854–56, according to the divisions of the kingdom, adding the exemptions made on account of defective height, and the proportions of height above the average, so as to show how even they by their progressive order confirm the relation of the populations with the suicidal tendency. On the other hand an inverse relation of diseases with the height of the inscribed is to be observed; but where these are frequent, suicides also increase. Let us remark that the official statistics from which we take these data give the average for the whole Neapolitan kingdom, and not for its different regions; that is why in our table these have equal proportional numbers.

These returns must be taken in a general sense; in fact there are exceptions in them, and the numbers are

TABLE XIV.—*Intensity of Suicide compared with Stature in Italy.*

	Suicides per million 1864–76	Average stature of the conscripts		Exemptions per 100 inscribed		Lowest stature under m. 1·56 1863–7	Highest stature above m. 1·70 1863–7
		1866–71 mtrs.	1874–76 mtrs.	through defective stat. 1866–71	through infirmity 1866–71		
Kingdom of Italy	31·0	1·634	1·62	10·23	29·23	—	—
Emilia	62·9	1·649	1·63	5·79	27·72	9·40	17·85
Liguria	47·3	1·640	1·63	9·62	30·57	13·59	16·10
Latium	41·7	1·636	1·63	8·08	18·38	—	—
Tuscany	40·6	1·650	1·65	4·98	33·75	8·49	19·22
Lombardy	40·4	1·641	1·63	8·27	41·41	14·01	17·20
Piedmont	35·6	1·636	1·62	9·62	30·57	14·73	14·86
The Marches	34·6	1·627	1·62	8·64	27·04	15·69	11·69
Venetia	32·0	1·653	1·65	4·09	33·50	6·47	23·78
Umbria	30·7	1·634	1·62	7·42	25·10	18·09	14·29
Campania	21·6	1·627	1·60	14·36	22·86	15·01	10·58
Sicily	18·5	1·618	1·61	14·58	29·62	22·31	9·64
Puglia	16·3	1·624	1·60	14·36	22·86	22·52	10·31
Abruzzi	15·7	1·621	1·60	14·36	22·86	21·70	8·97
Basilicata	15·0	1·611	1·60	14·36	22·86	29·96	6·42
Sardinia	13·3	1·602	1·58	23·11	26·46	33·86	4·01
Calabria	8·14	1·620	1·60	14·36	22·86	21·79	7·31

not progressive if they are studied separately; but by applying the method of grouping, the general result which we seek is found. If we divide the compartments into three groups according to the proportion of suicides, and compare the three aggregate averages with those of stature and exemptions through defectiveness of height in the period 1866–71, we shall obtain in

	Average of suicides	Average of stature	Average of the exemptions
		per cent.	per cent.
Group the first (under 20 per million)	14·4	1·616	15·85
„ „ second (from 21 to 40 per million)	30·9	1·635	8·81
„ „ third (over 40 per million)	46·5	1·643	7·34

Thus it is the group of divisions with high stature and with a smaller proportion of exempts which most contribute to raise the annual number of suicides in Italy. From the ethnology of the Italian region then the fact is

gained, that where the Slavic, German, Celtic, Etruscan, and Cymric races immigrate, there the highest stature and greatest number of voluntary deaths are found; on the contrary, where Latin blood and Ligurian is mingled with the Semitic, Berber, Albanian, Phœnician, Pelasgic, and Spanish, height and tendency to suicide decrease together.

The plains of the Po assuredly form the region that suffered the most severe intermixtures in Lombardy, Piedmont, and Emilia with the Celto-Germanic, in Venice with the Slavic element. Perhaps the Slavo-Baltic origin of the Eneti is the cause of the increase of height among the Venetians as well as the lowering of their number of suicides to the level of the Umbrians and the people of the Marches, and even below that of the Tuscans, in whom the Latin blood mingles with the Turso-Pelasgi. It is then noteworthy that in South Italy, where the Phœnician and Albanian colonies unite, there the inclination to suicide diminishes.

The ethnological ideas on France which we have already collected together were gained from study of the height of conscripts. The three ethnological zones, the Cymric, Celto-Cymric, and Celtic, are first disclosed in the maps showing the exemptions (Broca), then in those showing high statures (Boudin). The influence of the small Celtic race is shown by a high proportion of exempts; on the other hand these are few in number wherever the Cymmerian or Germanic element predominates. In the intermediate zone, where a more complete fusion of the two races took place, there also the numbers of the exempts are low.

Now in speaking of suicides their proportion is greatest in the departments of the tall Cymrics, and becomes lower successively as the departments are more mixed with Celts, until the numbers in those which are purely Celtic are

lowest of all. The Cymric zone comprises twenty-one departments of the north-east, between the Seine, the Channel, the Swiss frontier, and the Rhine, near which the Germanic element penetrated most. The second, the Celtic and mixed Celts, extends over fifty departments of the south-west, or over nearly three-fifths of the Republic; finally the third, Celto-Cymric, forms hardly a sixth of the French territory and runs in a linear curve from the mouth of the Seine and from the Channel to the departments of the Isère and Ain. We exclude from our comparison the department of the Seine, where the races are inextricably mixed, and we shall find a general and direct relation between the number of suicides and stature. The comparison of our map of suicide with that of height which Broca gives us (loc. cit., and also *Recherches sur l'ethnol. de la France*, Mém. cit. p. 277) will suffice to convince the reader of this fact. We will here give the results of the investigations of our distinguished friend on the French ethnic zones, remarking that in the following condensed table (taken from Broca, p. 320, l.c.), for the somewhat inexact figures for 1831–49, are substituted the averages we have calculated on the conscription of the thirty years 1831–60 (Table XV.)

Whilst in Italy and France the height increases along with the presence of the Germanic element, the Germans being taller than Celts and Latins, in Austria on the contrary the same influence is exercised by the Slavic element, inasmuch as the Slavs, especially of the south, are bigger than the Germans of the east (Bernstein, Schultz). It is therefore not to be wondered at if the relation between stature and suicide, instead of being direct, as it was in general for the European people of the south-west, should be found to be the inverse for those of the south-east. In the following analysis the

TABLE XV.—*Intensity of Suicide in France according to the Ethnic Zone.*

DIFFERENCES OF THE ETHNICAL REGIONS [1] Taken from anthropometrical studies on Stature (Broca).	Exemptions for defect of height per 1,000 examples (1831–60)	Proportions of suicides per million of inhabitants (1872–76)
I. Group of 15 departments of the purest Cymric (that is 1, 2, 3, 5, 6, 7, 10, 11, 13, 19, 20, 21, 22, 23, 24) .	39·08	233·1
II. Group of 3 Germanized Cymric departments (8, 9, 18)	49·29	164·7
III. Group of 5 Germanized Cymro-Celtic departments (Normandy, 4, 14, 15, 16, 17)	53·60	164·8
IV. Group of the other 8 Cymro-Celtic departments (25, 26, 27, 28, 32, 33, 34, 40)	60·48	141·6
V. Celtic departments modified by crossings:		
a) Group of the Lower Loire (35, 53, 54, 55, 56, 57)	66·51	104·4
b) Group of Aquitaine (60, 62, 63, 64, 65, 66, 68, 79, 80, 81)	71·98	75·4
c) Group of the ancient Roman Province (29, 72, 73, 74, 75, 76, 78, 82)	62·20	142·3
Average of these 3 modified Celtic groups . .	67·35	104·9
VI. Purest Celtic departments:		
a) Alpine group (30, 31)	105·08	147·2
b) Brittany group (49, 50, 51, 52)	99·37	73·7
c) Group of the 20 central departments (36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48, 58, 59, 61, 67, 69, 70, 71, 77)	106·47	93·0
Average of these 3 purely Celtic groups . . .	105·27	94·2
VII. Department of the Seine (12)	72·75	400·3
VIII. Corsica (86)	74·40	28·6

[1] The numbers between brackets placed after the name of each group indicate the departments contained by them, and refer to our Tab. VI. Ch. II. In the second group (Cymri-Germanic) German Alsace and Lorraine are wanting; there remain only the departments of the Meuse, Vosges, Meurthe, and Moselle (Treaty of Frankfort, May 10, 1871.—See the *Mitthellungen* of Petermann, fasc. 8°, 1871).

average of suicides has reference to the period 1872–77 for the Cisleithan, and to 1861–65 for the countries of the kingdom of Hungary; the returns of stature are made from the results of the conscription for 1871–72–73 in the twelve general Military Governments of the Empire.

Wherever the Slavic race is purest, as in Dalmatia, Croatia, Slavonia, Carniola, and Carinthia, there we find statures above the average and few suicides; where it is mixed with a large German element, as in Bohemia, Moravia, Silesia, and Styria we find medium height and also an intermediate proportion of violent deaths; finally, where it is almost entirely absent, and the German ele-

Relation of Suicide to Stature in Austria.

Governments and Regions	Suicides per million	Average height of conscripts	Exempted for defect of height
			per cent.
Zara (Dalmatia)	14	1·701	8·43
Gratz (Styria and Carinthia)	93	1·672	10·63
Innsbruck (Tyrol and Vorarlberg)	77	1·672	7·23
Agram (Croatia, Slavonia)	30	1·665	7·06
Trieste (Istria, Carniola)	42	1·663	5·76
Prag (Bohemia)	158	1·659	7·90
Brünn (Moravia and Silesia)	150	1·659	9·77
Vienna (Lower Austria)	254	1·659	9·63
Linz (Upper Austria and Salzburg)	110	1·659	13·66
Buda-Pesth (Hungary)	52	1·646	14·23
Hermannstadt (Transylvania)	80	1·646	16·40
Lemberg (Galicia, Buckovina)	98	1·633	22·73
Austro-Hungarian Empire	*116*	*1·659*	*13·73*

ment preponderates greatly, there we find medium height certainly, but greater exemptions through want of height, and the largest number of suicides. In the more eastern regions the low stature is due to the presence of Magyars, Ruthenians (Russians), Jews, and lastly of the Roumanians, all short races; and it is curious that here the Slavic element (excepting at least Galicia) being in a minority, the body becomes shorter and the inclination towards suicide once more increases in a direct ratio.

We have hitherto spoken of fair and dark peoples; anthropologists in fact admit two primitive types for Europe, the one tall of stature and with light hair and eyes, the other shorter and having dark skin and eyes. The latter inhabited Europe before the former, but has preserved its purity only in few places; to these belong specially the actual populations of the south, descendants of the Liguri, Basques, Thraco-Illyrians, Celts, Pelasgi, Latins, Siculi, and Albanians. Upon these most ancient stocks the long course of ages has stratified and mingled, in Lower Italy, in the Islands and Mediterranean regions, and in Spain, populations of the blond type, such as the

Cymri, Germans, and Normans, but in a large numerical inferiority, and a few others of the dark type, such as Phœnicians, Semitics, Saracens, and Berbers. Where the dark type remains less or more pure, the propensity to suicide is small, but where the fair peoples penetrate it resumes the highest proportions. The Belgic Cymri and the Walloons, in the north of France; the Anglo-Saxons and the Armoricanians (Bretons), in England; the Scandinavians in the north, and the Germans in the centre of Europe; lastly, the ultramontane Germanic or Celto-Germanic invasions of continental Italy introduced the ethnic type with light eyes and hair, who had also the greatest contempt for death. Looking at our map of Europe we find in the most strongly coloured zone which crosses it from east to north-west the mark of the Aryan immigration, fair people with great tendency to suicide, and of high stature. This immigration, driven out from the extreme western regions of Asia, went first into the valley of the Danube, and following its course, proceeded towards the north up to the shores of the Baltic and to the plains of Denmark, and towards the west as far as the banks of the Rhine. Driven forward again by new shoals of people, it passed beyond this river, invading again and again the north of France, and falling back on one hand to the south of the Alps in Italy, and on the other to the north of the Channel in England. The broad band or area which we called the region generative of suicide is evidence of the direction and way traversed in these very early times by the robust and persevering race which, after many ages, was to find itself at the head of civilization.

Another important anthropological characteristic besides the colour of the hair and eyes is the shape of the head, which may be useful in distinguishing the various

races among them, although the science of comparative craniology is scarcely yet marked out.

Italy gives this result in general, that suicide is more frequent among the brachycephalic races. In fact the Ligurians, Venetians, Modenese, Lombards, and inhabitants of Leghorn, who are more given to suicide than all other Italians, have skulls more or less large; on the other hand the Sardinians, Sicilians, Lucchesi, Garfagnini, Calabrians, and those of Puglia, are dolichocephalic or subdolichocephalic, and have the least inclination towards suicide. Sardinia comes last but one in the scale of suicide, whilst it contains the most dolichocephalic men in Italy (from 71·5 to 72 according to Mantegazza). In Sicily the mixture of the primitive Sicilian race with the Greek, Semitic, Norman, and Saracen has created many varieties of cranial types (Morselli; *Alcuni osservazioni sull' etnol. della Sicilia*, 1873): whilst Trapani, a Greek colony, has people of high stature, subrotund skulls (ind. 82), and more given to suicide than all the rest of the island. Also at Catania, where the shape scarcely comes under the denomination of sub-dolichocephalic (76) suicide is more frequent than at Messina, whose cranial type is the longest in Sicily. In the Neapolitan provinces the skull is in general lengthened, or at the most mesocephalic (from 73 to 78), and suicide oscillates between 8 and 21 per million. The cephalic index rises indeed in Umbria and Latium, where it is mesocephalic, and still more in the Marches, where it becomes sub-brachycephalic; these three regions surpass the Neapolitan district as to suicides. The Tuscan skull has no constant type; it is dolichocephalic in Lucca and Massa-Carrara, mesocephalic in general, and even sub-brachycephalic in the other provinces; now those two provinces have a smaller proportion of suicides, even when compared with Grosseto, whose low population is

well known. Lombardy and Piedmont give almost always sub-brachycephalic indices, whilst Venetia varies between the brachycephalic type of 86 (Treviso and Padua) and the sub-dolichocephalic of 75 (Rovigo and Vicenza). In the returns of suicide these three regions take the first place in central and south Italy, but come after Emilia and Liguria, whose cranial type is almost always brachycephalic; scarcely in two provinces is it sub-brachycephalic (from 80 to 84), and which give the highest proportions of voluntary deaths.

But this correlation between the round skulls and suicide is entirely wanting in France. The Celtic zone with few suicides gives the purest brachycephalic and the sub-brachycephalic (Auvergnese, Bretons, Gascons, Aquitanians of the departments of Auvergne, Lozère, Côtes du Nord, Finisterre, Alps, and Pyrenées), whilst the Cymric or Cymri-Celtic, with a high proportion of voluntary deaths, gives the most marked dolichocephalic, or at least the greatest number of long skulls (Normans, Flemings, Parisians, and French of the departments of the Seine and Oise, the Aisne, Somme, Marne, &c.)

The relations between other peoples are more exact. The Danes, brachycephalic (84), are more inclined to suicide than the Norwegians and Swedes, who have a tendency towards dolichocephalism (75). The cranial type of southern and central Germans tends to widen in a transverse direction (83), and their average exceeds that of the Prussians and people of Alsace who are mesocephalic (78) or scarcely sub-brachycephalic (82). But making a progressive series according to the cephalic mark, very grave contradictions are revealed; for example, beside the Germans who for rotundity of head should be placed next to the Magyars (82·3) and the Slavs (82·3), who yet stand so far removed from them in the matter of suicide;

amongst the brachycephalic we must place together the Savoyards (83·6), Croats (84·8), Finns (82·0), the Ruthenians (82·3), the Slovachs (83·5), Czechs (83·1), Roumanians (82·8), German-Austrians (82·0), and the North Italians (81·8), who have very diverse averages; lastly, among the mesocephalic, the Dutch (78·99) and the Parisians (79·4) approach each other in the cranial type, whilst they stand at the extremes of the series of voluntary deaths. Such divergences prevent us at present from arriving at precise results; it is because in the half-breed (*meticcie*) populations of Europe at the present time appear mixed up the characteristics of the original races whose cranial type we may nevertheless believe to be uniform, especially since there have been discovered in the most ancient tumuli, in the dolmens and caverns of prehistoric times, skulls long and short mingled together and derived from the indigenous populations. Let us content ourselves then with having gathered together, with respect to the influence of races and types, a few but certain conclusions.

§ 3. *Customs.*

It is certain that the manners and customs of the people, having an influence on their characters, their vices and virtues, and on their moral and intellectual prosperity, will in like manner be of use in modifying the inclination towards suicide; but we have no positive data for determining the mode and intensity of their action. That manners have become modified in the course of the present century much more rapidly and profoundly than in times past, and especially in ancient and mediæval times, is known to everyone. May not the extraordinary increase which suicide has undergone during the last forty or sixty years be ascribed to the changed habits, the new

customs and ideas, which now rule civilized nations. Modern life differs essentially from that of our fathers and forefathers; whilst the intellectual conditions are in general improved, material wants have also increased. Cultivation has stimulated in Europe a demand for the comforts and conveniences of modern life, which unfortunately, however, cannot be attained by the many. In the middle classes a luxurious tendency which increases superfluous desires, leaving the most essential things less satisfied, has gone too far. In the class below, on the contrary, misled by contact with and sight of riches, modern habits beget hatred to work, detestation of the wealthy classes, and that fatal demagogic idea of our time the moral evils of which Brierre de Boismont has so vividly painted. Rome and Athens saw suicide come into fashion when effeminacy, ambition, and the desire of riches prevailed amongst them; and modern Europe, having trod in the same steps as the pagan world, sees that fatal disease self-destruction reappear, and to a greater and more serious extent, and its habits resembling in so many respects those of the Greeks of Alcibiades and the Romans of Augustus.

Statistics are, however, incapable of showing by figures so complex an influence; it is only possible to confront their numerical results with the general and abstract knowledge furnished to us by ethnography. Thus where the conditions of property allow of an excessive number of rough uncultured proletariats, suicide is rare, as for example in Ireland and Russia; and where mediæval habits and superstitions against suicide still exist, there also the number of violent deaths remain low. This last fact has a special interest for the statistician, because it is probable that in certain countries where the old repulsion for the corpses of suicides and the disinclination of families to

give information of this kind of death continue, their registration still remains inaccurate and far from the truth. In many countries, as France, Bavaria, England, Lorraine, Lower Germany, and Switzerland, the remembrance is preserved of the atrocious and offensive penalties denounced against suicides, to whom burial was denied, and whose goods were confiscated; whose still quivering dead bodies were carried on pitchforks and were burned as homicides or dragged along the roads on a hurdle; which finally were carried off from the houses through a hole made in the door, or disinterred after months and years, and subjected to action at law. It is doubtful whether these penalties and the infamy which followed them have ever withheld from suicide anyone who was on the point of cutting the thread of his own existence, but statistics have so many hidden causes of error or inexactitude to struggle against, that it was desirable to point out the best known, and to which is to be ascribed by a slow evolution the scepticism and hostility shown by moralists and philosophers for the essays of experimental sociology.

CHAPTER IV.

SOCIAL INFLUENCES.

THE study of social influences would be the most fertile in results were it not for the difficulty we constantly meet with in distinguishing their true character and force. All the influences of the human will that we have studied hitherto might have been considered independently of the inner constitution of the social organism. They are all objective phenomena belonging to the undisputed domain of the experimental method, and statistics may bear upon them without let or hindrance. But when we come to the region of the nobler action of human thought, where our investigations have to search into forces and laws which bind together social life, countless doubts and obstacles beset the path of the sociologist. Yet even in this category of investigation facts ought to take precedence of ideas, and all theorising should be based on observation. In collecting and collating such manifestations of human thought as civilization, religion, morality, public culture, the aggregation or diffusion of social life, precisely the same procedure should be followed as in analysing the phenomena of the psychogenesis of the individual. This present chapter will serve to show how the psychical life of the individual is but the reflex of the nature and characteristics of that social aggregate in the midst of which it thinks, wills, and acts.

§ 1. *Civilization.*

The question has of late been much under discussion whether the effect of civilization has really been in the direction of increasing the tendency to mental diseases. While some have laid down an affirmative, others have transformed the whole social problem into an idle and useless philological sophism, maintaining that the term *civilization* ought to be understood as to indicate nothing more than the greatest amount of well-being, physical and moral, of mankind, and under this aspect the increase of madness and suicide could not be attributed to the influence of civilization, but to the natural inclination of mankind to exaggerate its benefits and to expect more from it than it has to bestow. But if the affirmative answer be accepted as the outcome of the statistics of civilized nations in our times, we must consider what is meant by civilization, and whence it had its origin.

The best equivalent for the word *civilization* is perhaps given by the illustrious Guizot; that it is the idea of progress, similar to that called Darwinian evolution, applied to the functions and needs of mankind. Mankind began its career by a struggle with its wants, nutritive and sensitive, and in order to supply them had to supplement its means of warfare with nature by the efforts of its own intelligence (hence the arts), and by an association in those efforts (hence families, tribes, society). In this rude but glorious struggle, its needs were both multiplied and elevated; to the mere animal appetites were joined those more strictly human, to the organic the physical, until the human brain, perfecting and enriching its scope and subdividing its activities by means of the use of language and the invaluable experience of past genera-

tions, reached its nobler aim in moral and intellectual developement. The future triumphs of civilization will only be attained by the further collection and utilization with one common accord of that viscus, which might be enclosed in the two hands, and is yet the *foundation* of the universe. Hence wherever the bond of association is deep and widespread, where the victory over natural forces is assisted by the union of force and intellect, there will the highest civilization be found.

From this premise it follows that the European nations are the prime leaders of civilization, and among them all those rank first who first showed respect for laws and the liberty of the individual, who first established union and concord between force and intellect, who first acknowledged the supremacy of justice and reason, who first encouraged free enquiry into facts and relieved thought from fetters, who first fostered the progressive expansion of science and the application of its marvellous discoveries to arts and manufactures, to public hygiene, to commerce, and to the very engines of destruction. By these characteristics will readily be recognised the occupants of the central and western zone of Europe, that is, of those allied to the great Germanic stock.

The right of priority among nations must be measured by the amount of influence exercised on the political and social destinies of the civilized world; nor is civilization limited to any one race or one people, still less to any one religion. Never to be considered as having attained absolute perfection, but always bearing relation to the conditions of the age, civilization progresses, passing on with fateful steps from one race to another, from nation to nation, at the guidance of laws which become matters of history, and which are themselves the consequences of irresistible evolution, immutable and universal. Even

from the beginning of the remotest ages, when the, so to say, neolithic civilization replaced the palæolithic, to be in its turn followed by the civilization of a bronze age, then by that of an iron age, no one race could claim to be the one sole vestal of the sacred fire of humanity. But the parabola of the great Pelasgo-Latin era once accomplished, the reformation of religious thought seemed to prepare a fertile soil for civilization in the north-west of Europe. Here, divested of all clog of dogma and metaphysics, the activity of the human mind was left free to expand and unfold itself. Hence has flowed into the rest of the world the benefit of social polity, the discoveries and methods of science, the improvements in arts and industries, material well-being, the practical direction of daily life, and the general thirst for culture; here it was that the horizon of ideas first became enlarged, and that every part of the social body became instinct with energy, love of liberty, and respect for moral law.

But when we would institute a comparison between the various degrees of civilization among different nations, we are met by insuperable difficulties; for the question may be approached from so many sides, according to what particular phase of civilization we have in view, whether it is moral and intellectual improvement, or material advantages. Almost every country has its own distinctive and, so to speak, specific phase of civilization, nor would it be found possible to determine whether in reality those nations where suicide is of most frequent occurrence are those which could be called absolutely and under all aspects more civilized than others which display less inclination for voluntary death.

To our mind it is indisputable that madness and suicide are met with the more frequently in proportion as civilization progresses, for the comparative statistics of the

last fifty years tend to prove it; but at the same time it must be remembered that a portion of the increase in numbers is due to the improved methods of investigation. Still, when the errors of the older calculations have been allowed for according to the theory of probabilities, there still remains a preponderance of cases in those States which are most advanced in civilization, and above all in intellectual developement. Savage peoples do not resort to suicide except under stress of hunger, as the Australians, the people of Tierra del Fuego, and Hottentots; or through fanaticism, like the Eskimo, the Kamschatkans, Bengalis, and Japanese, Indians and Incas, and the aborigines of Malabar. Civilized people, on the other hand, have a thousand more motives for it, motives which are caused by psychical (cerebral) needs, caused and multiplied by the mutual relations of highly organized society. Meantime the inferior races, just because they withhold themselves from the influences of civil progress, do not acquire any increased leaning towards suicide, even amid contact with Europeans, or at least only by slow degrees and in proportion as they adopt our civilization.

The question of the benefits and evils of civilization therefore cannot be brought into the discussion: facts have a language of their own which breaks in pieces all the arms of dialectics and sentiment. The conclusions at which we shall arrive in the course of this work will show the real cause of this apparent deterioration of civilized nations. To those who admit the primary cause of progress and evils to be in the struggle of man with nature and with himself, suicide shows itself what it really is; a social phenomenon, inevitable and necessary in the process of civilization. Only in an ideal condition of the society of the future, where man's sphere of action shall have made itself independent of nature, and where all his forces shall

have attained the summit of perfection, only in such a final and would-be Utopian condition of human progress, will the struggle cease to have victims; but until that supreme end has been attained, the weary and perhaps everlasting path will still be inundated with the tears and the blood of mankind.

§ 2. *Religion, forms of worship, and creeds.*

The influences of religion are, together with the influence of race, the strongest motive powers which act on the will of man. The discussion as to whether the growth of suicide is to be accounted for by the decrease of religious sentiment scarcely finds place in a work like this. It is a thesis generally put forward by moralists whose opinion approaches our own on this subject. On the other hand, the theme of the special influence of the various faiths, which statisticians have sought to dispute, presents itself to us, two kinds of proof being deduced therefrom. The first is furnished by the indication of the form of worship to which suicides belong; but unfortunately this is represented in very few statistics of central Europe, and is not always adapted to each case in particular. The second is the approximate relation between the number of violent deaths and the predominant form of worship in given countries; and here the most fertile in results are the statistics of the States having inhabitants of various forms of worship, as Prussia, Germany, Austria, Holland, and Switzerland. The countries of the south, Italy, Spain, and France, have so small a number of non-Catholics that little or no comparative result could be obtained from it. We notice again that in the comparisons based on the religion of suicides, Judaism figures, in which the influence of religious bonds is complicated

with that of race. This is perhaps the only religion bound up in the fate of a single people, whether on account of the exclusiveness of the Mosaic laws, or because no other race is so jealous of its own purity, its own customs, and especially of the faith of its fathers, as the Jewish. In every country where the *chosen* people has been spread, it has always preserved the moral Semitic character, whilst it has sometimes modified its physical characteristics, as when becoming fair where formerly dark skinned; the religion of the God of Abraham is the only bond which now unites its scattered members. This strong influence of race obliges one to proceed cautiously in attributing to the Mosaic religion the little tendency of Jews towards suicide. In the most ancient history of Palestine not more than ten suicides are mentioned, and their greatest number belongs to a less pure Jewish period, when through the Babylonish captivity and through the false prophets, they lost all trace of the ancient law. Already, amongst the last Jews who had to struggle against the invading Roman power, suicide had become more frequent (Josephus), but while dispersing themselves among other nations over the face of the earth, the descendants of Abraham have always shown and still show among their moral characteristics an habitual resistance to suicide, although the same cannot be said with regard to madness.

The influence of other religions may be studied without being perplexed with the question of race. It is true that the people called Latins have remained faithful to Catholicism, whilst the reform of religious thought was the exclusive work of the Anglo-Germans; but it is likewise true that in countries of mixed religions, statistics have always shown the hurtful or beneficial effect of each. At first sight it is indeed perceived that the purely

Catholic nations, Italy, Spain, and Portugal, stand on the last step of the scale of suicide, whilst those exclusively or mostly Protestant, take the first grade; it suffices to cite Saxony, Denmark, Scandinavia, and Prussia. In countries of mixed religions, then, the inclination towards suicide diminishes in direct ratio to the predominance of Catholicism. Looking at the aggregate of statistics collected by us for the most recent years (see Table IV.) it is inferred that the frequency of suicide is, in States of Catholic religion, on an average of 58 per million; in Protestant States, 190; in the United or non-united Greek, 40; where there is a mixture of Catholic, Protestant, and other sects, 96 per million. Countries of the Greek religion then give the smallest proportion, but here comes in the great influence of Slavism, which would be sufficient to neutralize all others, as we already found was the case with regard to climate and anthropological characteristics. With our results, those of Wagner, Oettingen, and Legoyt agree; this latter author having calculated, on the statistical documents of Bavaria, Prussia, Würtemberg, and Austria, that the tendency to suicide is, among Protestants, 102·7 per million individuals; among Catholics, 62·3; among other Christians (Greeks, United and the Orthodox) 36·2; and lastly, amongst the Jews, 48·4 per million.

But much more correct than this comprehensive comparison is that between the proselytes of different religions in the same country, because then the political and social conditions do not vary, and the due homogeneity of comparative data remains the same. Statistics however are liable to another error; in most cases the religion of the suicide is not registered, and the column of the unknown always predominates over the others. It is sufficient to cite the Prussian statistics of the two years 1871–72, in which out of 5,673 registered suicides, quite 3,703 (65 per

cent.) can give no answer to the question of the religion professed by the suicides. Nevertheless we have been able to ascertain the frequency of suicide among individuals of different religions in the following countries:—

TABLE XVI.—*Influence of Religion on the Tendency to Suicide. Proportions of Suicides per million Inhabitants of each Religion.*

COUNTRIES AND PERIODS	Total average of suicides	Catholics	Protestants	Other Christians	Jews	Propor. of Catholics in the pop. per 100	Per 100 suicides, both Catholics and Protestants
Bavaria (1844–56) [1]	72·0	49·1	135·4	—	105·9	71·32	276
Palatinate of the Rhine	50·3	52·0	62·0	—	35·0	43·7	119
Lower Franconia	61·1	49·0	164·0	—	141·0	80·5	334
Central Franconia	126·0	59·0	134·0	—	86·0	21·9	229
Upper Franconia	107·0	75·0	146·0	—	114·0	42·4	194
Swabia	64·2	58·0	150·0	—	108·0	85·7	258
Upper Palatinate	29·7	30·0	90·0	—	—	91·9	300
Upper Bavaria	44·6	56·0	237·0	—	123·0	96·5	423
Lower Bavaria	25·3	28·0	148·0	—	—	99·4	528
Bavaria (1857–66)	80·0	55·2	136·1	—	100·3	71·3	246
„ (1866–67)	91·0	56·7	152·7	—	140·4		269
Prussia (1849–55)	122·0	49·6	159·9	130·8	46·4	33·1	322
Rhine Prussia	52·6	27·7	108·0	—	34·5	73·8	389
Westphalia	63·5	24·4	80·2	—	66·2	53·9	328
Saxony pr.	215·0	26·3	140·1	—	—	5·98	532
Brandenburg	176·0	114·3	165·0	—	—	2·56	144
Pomerania	136·0	—	102·0	—	—	0·98	—
Silesia	152·0	58·5	153·0	—	31·2	50·5	259
Posen	68·7	41·5	124·1	—	38·0	62·6	299
Prussia pr.	99·7	31·0	96·6	—	33·3	27·0	311
Prussia (1869–72)	133·0	69·0	187·0	(22 ?)	96·0	33·5	271
Würtemberg (1846–60)	96·7	77·9	113·5	—	65·6	30·6	131
„ (1873–74)	163·0	120·0	180·0	—	80·0	30·2	138
Baden (1864–69)	139·0	121·1	161·9	(30)	(141)	64·9	133
„ (1870–74)	156·6	136·7	171·0	—	124·0	64·5	125
Austria (1852–54, 58–59)	72·0	51·3	79·5	54·1	20·7	92·1	155
Bohemia (1858–59)	81·0	69·0	132·0	—	81·0	96·3	191
Moravia	69·4	67·0	87·0	—	12·0	95·0	100
Silesia	59·6	57·0	97·0	—	—	85·9	170
Upper Austria	39·6	41·0	68·0	—	—	97·8	185
Lower Austria	80·0	105·0	247·0	—	(428 ?)	98·6	235
Galicia	47·9	45·0	16·0	—	10·0	44·7	35
Carinthia	31·0	47·1	90·0	—	—	94·0	191
Buckovina	70·0	80·0	—	34	—	9·5	—
Military Frontiers	32·0	28·0	25·0	—	—	42·2	89
Hungary (1852–54, 58–59)	30·0	32·8	54·4	12·3	17·6	54·5	166
Transylvania (1852–54, 58–59)	36·0	113·2	73·6	20·5	35·6	10·9	65

[1] The total number of suicides for Bavaria relates to the period 1851–52, 56–57; for Prussia to 1856–58; for Austria to 1860–61 (according to Wagner). The proportions of the Catholics in the population are calculated on the census taken nearest to the years indicated (*Almanach de Gotha*, passim).

To this table we have to add the following data with greater detail as to religions for some Austro-Hungarian countries (from Wagner and *State Commission*):

(Synopsis A).		Bohemia (1858–59)	Moravia id.	Galicia id.	Buckovina id.	Hungary id.	Transylvania id.	Military Frontiers id.	Cis. Austria (1864–65)
Catholics	per cent. in the pop.	96·2	95·0	44·7	9·5	54·5	10·9	42·2	0·4
	Suicides per mil.	69	67	45	80	41	130	28	73·7
Evangelicals	per cent. in the pop.	1·9	2·7	0·6	1·9	27·5	23·4	1·9	1·7
	Suicides per mil.	132	67	16	—	54	74	25	100·0
	a, Lutherans	162	58	18	—	60	90	32	—
	b) Reformed	114	72	—	—	74	83	—	—
Greek Catholics	per cent. in the pop.	—	—	44·8	2·0	8·4	31·0	0·5	11·7
	Suicides per mil.	—	—	47	—	14	29	91	45·7
Oriental Greeks	per cent. in the pop.	—	—	—	78·7	5·0	31·3	55·3	2·5
	Suicides per mil.	—	—	—	34	15	24	22	45·7
Other sects (United)	per cent. in the pop.	—	—	—	—	—	2·2	—	0·2
	Suicides per mil.	—	—	—	—	—	94	—	—
Jews	per cent. in the pop.	1·8	2·2	9·7	6·5	4·5	0·9	—	3·5
	Suicides per mil.	81	12	10	—	30	—	—	33·3

In Table XVI. we have thirty-seven comparisons of different countries and periods, of which hardly four show the Catholics superior in numbers of suicides to Protestants, Jews, and Greeks (Galicia, Buckovina, Military Frontiers, and Transylvania), and one only, also with doubts as to its being an error, gives the higher number to the Jews (? Lower Austria); but in the remainder the larger proportions are always offered by the Protestant religion, whether Lutheran or Reformed. The most frequent order in which the various religions follow each other is this: *Protestants*, *Catholics*, and *Jews*; and next in order of frequency come *Protestants*, *Jews*, and *Catholics*. Looking next at the position held by the Oriental Christians, it will be found that once only, and then it was among the Greek Catholics or Uniates, they gave the largest proportion to suicide (Military Frontiers); as a

rule, their proportion is always lower than that of the Protestants, often also than that of the Catholics of the West. The inferiority in numbers of the Greeks is most apparent in Transylvania, where the Catholics occupy the first place, followed by the Uniates, then by the Lutherans and Calvinists, and lastly at a long interval, by the United or non-united Greeks. The peculiar position occupied by Jews in relation to Catholics deserves attentive investigation. Jews are in general more subject to mental alienation than either Catholics or Protestants. In Bavaria, for instance, we find one insane in every 908 Catholic inhabitants, in every 967 Protestants, and every 514 Jews. In Hanover the reports give respectively one in 527 Catholics, in 641 Protestants, and in every 337 Jews. In Würtemberg one in every 2006 Catholics, in 2,022 Protestants, and in 1544 Jews; and in Denmark in like manner, while there is one insane person in every 1,750 among the Jewish population, there is one in every 2,000 of other religions. In Italy also, since the asylums have been opened to Jews, their contingent has been very considerable (Lambroso, Livi). Is the explanation to be sought in their race, their religion, or their customs? Dr. Martini (of Leubus) would refer it to their frequent consanguineous marriages; but in truth the supposed evils arising from the consanguinity of parents have yet to be proved. To us it seems more correct to regard it as the consequence of the mode of life and habits of the Hebrew people, who are always to be found living in crowded cities (excepting, perhaps, the numerous Jewish population of Galicia, Poland, and Buckovina); and the professions they follow are more liable than others to commercial crises and the constant vicissitudes of trade.

With regard to suicide on the other hand, the Jews of various countries differ more among themselves than

Catholics from Protestants, who maintain a certain relative proportion with little variation. Great anthropological and social diversities are indeed to be observed between the Jews of Poland, Galicia, and Russia of the Dnieper, where they are very numerous and exercise an important influence on public affairs, and those of central Europe, and in general of Catholic or mixed Catholic countries, where they have had to struggle through so many centuries against religious intolerance.

The very high average of suicides among Protestants is another fact too general to escape being ascribed to the influence of religion. Protestantism, denying all materialism in external worship and encouraging free enquiry into dogmas and creeds, is an eminently mystic religion, tending to develope the reflective powers of the mind and to exaggerate the inward struggles of the conscience. This exercise of the thinking organs which, when they are weak by nature, is always damaging, renders them yet more sensible and susceptible of morbid impressions. Protestantism in the German States further exercises this exciting influence on the cerebral functions in yet another manner; it originated those philosophical systems which are based on the naturalistic conception of human existence, and put forward the view that the life of the individual is but a simple function of a great whole. These philosophical ideas are harmless enough to strong minds and those stored with a fit provision of scientific culture, but in the democratic atmosphere of our times the heart is not educated *pari passu*. The religious apathy with which the present generation is afflicted does not arise from a reasoned enquiry into the laws of nature or a scientific appreciation of its phenomena; it is not in short a deep conviction of the mind, but springs from a physical inertia and from

the little hold obtained by any ideas but such as are directed to material improvement and the gratification of ambition. To our mind therefore the great number of suicides is to be attributed to the state of compromise which the human mind occupies at the present time between the metaphysical and the positivist phase of civilization, and as this transition is more active in countries of marked mystic and metaphysical tendencies, such as is the case with Protestantism, it is natural that in them suicide should have the greatest number of victims.

It is obvious that a great difference generally exists between Catholic and Protestant countries only, not between the Catholic and Protestant inhabitants of the same country. Where the tendency to suicide is great among the latter, it will be found to be also high among the former, as may be observed from the statistics already quoted of Baden, Würtemberg, Franconia, Galicia, Bavaria, &c. This follows from the moral and social condition of the various religionists being rendered locally identical. Wagner, Oettingen, and Legoyt reckon that they have established from their study of the influence of religion on this matter, that '*the inclination towards suicide in the inhabitants belonging to any particular worship, in any given country, will diminish in direct ratio with their numerical inferiority.*' According to Legoyt, suicide more rarely occurs in those persuasions which are numerically weak, because the struggle with the hostility and intolerance of the population in the midst of whom they live exercises on them a sort of moral coercion, making them desirous to avoid the harsh judgment held over them. As a matter of theory we cannot deny the truth of this conclusion of Legoyt, as we well know how the spirit of association and the earnestness of religious con-

victions increase in proportion to the isolation into which any given congregation is cast when in the minority in a country. This influence of the surrounding atmosphere on religion is proved by the persistence and tenacity of the transmission of the Mosaic law through so many ages and migrations, and may explain the small tendency towards suicide among Jews. But at the same time an attentive examination of facts does not altogether bear out Legoyt's conclusion; for we find that it is scarcely ever that minorities furnish the smallest contingent to the register of suicide. For example, in Lower Bavaria, where Protestants are barely $\frac{8}{100}$ of the population, we find 148 suicides in a million among them, whereas among Catholics, who compose nine-tenths of the population, the number of suicides amounts to hardly 28 in a million. In Brandenburg, where the Catholics are scarcely $\frac{3}{100}$ of the population, they show a threefold greater inclination for suicide than in Saxony where they form *half the population*. And in Austria the Catholics, although in a minority in Galicia, Buckovina, the Military Frontiers, and Transylvania, yet show a greater tendency to suicide than either Greeks, Uniates, or Jews. The exceptions to the rule therefore are more numerous than the examples which should establish it. So far from it, if we consider the aggregate of the various countries of Europe, and that at the *latest statistical period* (see Table XVI.), it is easy to perceive that where religious toleration has made more way, minorities begin to approximate the general average of their religion, the moral coercion of which Legoyt speaks is fast disappearing, and the unmixed influence of religion begins to tell with full force. The same thing happens with the Protestants of Baden, Würtemberg, and Austria, and in fact everywhere; notwithstanding that they form the minority, and in some cases a very considerable minority,

TABLE XVII.—*Influence of Protestantism and Catholicism on Suicide.*

Comparison of the Intensity of Suicide with the Dominant Religion.

COUNTRIES	Suicides per million	Inhabitants pr. 1,000	
		Cath.	Prot.
A.—CATHOLIC COUNTRIES[1]			
Spain	17	999	—
Portugal	13	999	—
Italy	32	995	2
Belgium	68	996	4
Corsica	28	999	—
Luxemburg	35	995	5
Dep. Seine	400	998	2
„ Nord	110	996	4
„ Pas de Calais	147	992	8
„ Seine et Marne	383	992	8
„ Seine et Oise	388	991	9
„ Aisne	298	990	10
France	150	982	16
Swiss Cantons[2]	65	984	15
Limburg	35	977	17
Circ. Aachen	40	960	33
Lorraine	97	932	49
Circ. Constance	148	919	73
Cisleithan Austria	72	919	41
B.—MIXED COUNTRIES, WITH A PREVALENCE OF CATHOLICS.			
Circ. Münster	40	898	94
„ Oppeln	53	888	92
Dep. Doubs	124	886	114
„ Ardèche	85	884	116
„ Drôme	162	882	118
„ Deux Sèvres	111	880	120
Northern Brabant	6	879	116
Upper Alsatia	143	855	116
Circ. Köln	57	816	140
Dep. Lozère	55	844	156
Circ. Treves	53	836	153
Ireland	(14)	767	234
Bavaria	72	713	275
Swiss Cant., Cath. m.	172	700	294
Circ. Posen	73	672	283
„ Friburg	74	653	332
„ Coblentz	74	652	329
Duch. of Baden	157	648	331
Dep. Gard	115	643	357
Lower Alsatia	130	642	322
Circ. Danube	180	635	358
„ Carlsruhe	105	613	370
„ Düsseldorf	81	593	394
„ Osnabrück	74	554	442
„ Bromberg	65	545	409
„ Marienwerder	71	485	482
C.—MIXED COUNTRIES, WITH A PREVALENCE OF PROTESTANTS.			
Circ. Mannheim	73	480	482
„ Datzig	95	470	499
„ Arnsperg	86	430	559
„ Breslau	191	406	574
„ Wiesbaden	147	385	583
„ Minden	66	390	596
Netherlands	35	367	613
Prov. Gueldres	34	368	620
„ Utrecht	41	370	621
Prussia (Kingdom)	138	331	651
Northern Province of Holland	43	278	663
Prov. Overyssel	25	297	687
Würtemberg	162	304	687
Circ. Jaxt	120	301	687
Hessen Nassan	158	263	708
Circ. Black Forest	160	259	736
Prov. Zealand	41	259	736
South Holland	35	246	738
Cant. Switzerland, Prot. m.	239	260	738
Circ. Erfurt	197	251	741
Oldenburg	198	228	764
Circ. Königsberg	153	200	786
„ Cassel	167	166	806

[1] In this table the *Catholic* or *Protestant countries* are those which have less than $\frac{1}{10}$ belonging to the contrary faith; *the mixed countries with prevalence of Catholics* or *Protestants*, those having more than $\frac{1}{10}$ inhabitants of one of the two religions.

[2] The Swiss Catholic Cantons are: Ticino, Uri, Lower and Upper Unterwalden, Inner Appenzell, Valais, Schwitz, Lucerne, Zug. The mixed with predominance of Catholics: Solothurn, Friburg, San Gall, Geneva. The mixed with predominance of Protestants: Aargau, Grisons, Thurgau, Basle, Glarus, Bern, and Neuchâtel. The Protestant Cantons: Schaffhausen, Vaud, Zürich, and Outer Appenzell.

TABLE XVII.—*cont.*

COUNTRIES	Suicides per million	Inhabitants pr. 1,000		COUNTRIES	Suicides per million	Inhabitants pr. 1,000	
		Cath.	Prot.			Cath.	Prot.
Circ. Liegnitz . . .	252	158	830	Circ. Köslin . . .	83	16	965
„ Hildesheim . .	155	150	842	„ Stettin . . .	144	6	970
Hanover	153	119	874	„ Frankfort . .	191	16	972
D.—PROTESTANT COUNTRIES.				„ Gumbinnen . .	89	12	976
				Kingdom of Saxony .	311	21	976
				Saxe Meiningen . .	264	6	983
Circ. Neckar . . .	190	81	907	Circ. Lüneburg . .	190	10	986
Prov. Frisia . . .	55	82	908	Schleswig-Holstein .	228	6	988
„ Groningen . .	97	70	908	Circ. Stade . . .	163	6	989
Protestant Cantons of Switzerland. . .	279	68	922	„ Merseburg . .	238	7	990
				„ Stralsund . .	197	5	991
Prov. Drenthe . .	63	52	923	Mecklenburg . . .	167	2	992
Circ. Berlin-Potsdam .	195	25	940	Hamburg . . .	301	2	992
England	70	53	946	Saxe Altenburg . .	303	1	998
Circ. Aurich . . .	120	22	959	Lauenburg . . .	156	—	999
„ Hanover. . .	153	29	960	Denmark	258	—	999
Waldeck	(62)	21	962	Sweden	81	—	1,000
Circ. Magdeburg . .	231	29	962	Norway	75	—	1,000

the average of suicide is everywhere higher than that of the Catholics. If a numerical inferiority were to operate at the present time in reproducing the tendency to suicide, we should not find it, as we do, much more frequent among the Jews of Bavaria, and especially in Lower Franconia and the Archduchy of Austria, than among the Catholics, although they form but a small fraction of the population.

With regard to the influence of religion in this matter the only one fact which as yet has been well proved is the higher rate of suicides among Protestants than among Catholics, as appears from Table XVII. above, in which, along with the average of various States and Provinces, we have given the proportions of the inhabitants belonging to the two faiths. A very considerable difference will be found, particularly in countries of mixed creeds, where those in which Protestants predominate are always visited

with the greatest number of violent deaths. It needs but to compare the mixed Cantons of Switzerland, the Circles of Prussia, Hanover, and Baden, and the provinces of Holland. And it is observable, that while there certainly are Catholic countries which supply a high average (such as the departments of the Isle de France and the Orleannais), no Protestant country has figures that will bear comparison with the lowest of those of certain Catholic countries of the South of Europe. The influence of Paris is such as altogether to neutralize that of religion; but for so considerable a rise in the average of the north-east of France, we must take into account the introduction of the Germanic ethnical element, for there the religious apathy which springs from the habits of our times has not yet taken sufficient effect to tell upon statistics.

§ 3. *Culture and instruction.*

The principal element of civilization is the cultivation of the intellectual powers, which our age seeks to extend to all classes of society, since the condition of perfection to which our age aspires, presupposes that every man should have the means of learning how to exercise all the natural faculties put within his reach. This modern thirst for culture increases and multiplies with the desires to be supplied, and with the perpetual quickening of the vital struggle.

It has been found in all countries, however, that suicide and mental aberration have prevailed just among those classes to which civilization has afforded the benefit of instruction, and this as much in Germany and France as in Italy and England, and we may say in all Europe. The direct relation, however, between culture and civilization could only be arrived at by means of a perfect

analysis of the intellectual conditions of a given civilized society, and this is not possible, seeing that the cognisance of statistics is limited to the general cultivation of the population. But even to arrive at the exact value of this much, it would be necessary to have precise information as to the number of the scholars and the schools, as to the diffusion of modern scientific principles, as to the methods and direction of the instruction, and on the system of education adopted; and in place of all this we have nothing but the bare numeration of those who can and cannot read and write! Although the knowledge of reading and writing denotes scarcely the most elementary, and indeed often the least useful degree of cultivation, still the number of those wanting even in this amount of knowledge seems to fix the standard of the general culture of all classes in a country, and particularly of the lowest and most numerous, which would escape altogether in an investigation into the character and methods of higher education. In the meantime, from a glance cast on the map of Europe, it may be inferred that *it is those countries which possess a higher standard of general culture which furnish the largest contingent of voluntary deaths.* Although sometimes great differences may be observed in the degree of instruction, but equal intensity in the suicides, yet the geographical distribution of these violent deaths goes in a general way *pari passu* with instruction.

The Germanic peoples are more cultivated than all the other European nations; the Slavs of the north and the Romans of the south are less so; the English, French, and Slavs of the centre and east occupy an intermediate place. Sweden, Norway, Denmark, Germany, Bavaria, Saxony, Alsace, and Champagne, take the lead in popular education, and also in frequency of suicides. And examin-

ing the various regions of one single country, the north and north-east of France show the same relation between culture and suicide, compared with the centre and south-west; the north and centre of Italy, compared with the south and the islands; Brandenburg, Saxony, and Schleswig, with Prussia, Pomerania, and Silesia. On the other hand, Portugal, Spain, Corsica, Dalmatia, Upper Bavaria, Tyrol, and Carniola, show the same twofold inferiority in numbers, when confronted with the more cultivated neighbouring regions. Saxony, amongst the German countries, is the most advanced as to schools and spread of education, and we have seen already that it was the focus of irradiation of suicide in all central Europe.

The influence of Protestantism may partly be ascribed to its facilitating the developement of intellectual culture; it is the Protestant countries, and any country with Protestant inhabitants, who are always pre-eminent both in instruction and suicide.

On the comparative education in various nations, and on its relation with suicide, we have the following data (*Census of* 1871; *Population classified according to age, sex, and education*).

Of these four European nations, Prussia stands first, both as to education and suicides; France comes next, second in both sociological characteristics; lastly, Italy and Hungary, having about the same number of suicides although in the proportions of the uneducated there is a difference of 10 per cent. The figures give rise to some other considerations with respect to the differences between the two sexes. The female suicides stand towards the male in the general ratio of 20 : 100, and in education the number of women is always below that of the men. It is true, certainly, that the average of female education does not stand in the same relation to the male,

	Both sexes		Males		Females	
	Unable to read and write per 100	Suicides per million	Unable to read and write per 100	Suicides per million	Unable to read and write per 100	Suicides per million
A.—Unable to Read and Write, from 6 years old and upwards.						
Italy 1871	68·2	32·9	61·1	50·7	75·3	11·4
Hungary 1869–70	58·2	32·0	53·8	48·6	62·5	12·1
France 1872	31·4	117·0	28·0	181·0	31·8	51·0
B.—Unable to Read and Write, from 20 years upwards.						
Italy 1871	68·9	32·9	70·2	50·7	77·7	11·4
France 1872	33·9	150·0	30·0	181·0	37·8	51·0
C.—Unable to Read and Write, from 10 years upwards.						
Prussia 1871	13·7	122·0	10·9	198·0	16·4	47·0
United States of America 1870	20·1	32·0	18·2	—	21·9	—
Italy 1871	67·5	32·9	59·9	50·7	75·0	11·4

in the two relative numbers of violent deaths, as it ought to do if the intensity of the suicidal tendency depended only on the greater or lesser degree of education; but in the meantime this fact deserves attention, since it also may have some influence in increasing the divergence between the two sexes. The comparison of the population of the United States of America would confirm us in this opinion. Whilst the blacks have an average education lower than that of the whites (81·3 against 11·5 uneducated per cent.), the black women come nearer the men in education, and in the younger portion even surpass them; now Baly and Boudin assure us that the blacks have an extraordinary propensity to suicide, so much so as to surpass in some parts of the United States the white women to the remarkable degree of 1,225 to 430 (that is, 350 to 100). As women enjoy the most perfect psychical

susceptibility, it is natural that contact with European civilization, particularly by reason of increased mental occupation, becomes more rapidly harmful to the women than the men of colour.

In the data of the conscription also, in which is registered the degree of elementary education of the conscripts, the inferiority of the average level of culture is seen in those countries which offer smaller averages of suicides. In fact, on the conscription of the period 1865–73, it is seen that there are 59·3 per cent. conscripts who cannot read and write in Italy, 23·7 in Belgium, and scarcely 3·5 in Prussia. Of those who can read only there are 63·5 in Italy, 29 in Belgium, 55·4 in Austria, 70·9 in Hungary. When these five countries are arranged in order of their statistics of education, they agree with the order of the statistics of suicide, Belgium and Austria being reversed.

Where, however, the relation between culture and intensity of suicide becomes evident is when the various provinces of one State are confronted, as of France or Italy. Italy lends itself to this comparative study by reason of the very remarkable differences in education among the different divisions, which in the census of 1871 gave 856 uneducated on 1,000 inhabitants in Naples to scarcely 500 in Piedmont where civilization is more advanced. Education in Italy decreases gradually from the north to the south, and the parallelism between the distribution of general culture and that of voluntary deaths, and its antagonism to crimes of blood, is noteworthy. If we examine province by province, the frequency of suicides will not always be found in direct relation with superior culture; but if the sixty-nine provinces are divided into seven groups according to the averages of the uneducated, the following almost regular scale will be obtained:

(10 provinces in each group)	Averages	
	Suicides per million inhab.	Crimes against the person in 10,000 inhab.
I. From 423 to 564 uneducated per thousand inhab.	37·82	9·92
II. „ 568 „ 692 „ „	46·60	8·76
III. „ 708 „ 755 „ „	43·85	13·92
IV. „ 757 „ 803 „ „	40·03	12·25
V. „ 807 „ 861 „ „	26·45	18·87
VI. „ 862 „ 884 „ „	14·54	26·22
VII. „ 885 „ 917 „ „	12·50	23·30

An inverse ratio between ignorance and suicide is to be observed in the third group, after which it is regularly progressive up to the last. The anomaly of the first group is due to the circumstance that it includes all the mountainous provinces of Piedmont and Lombardy, and we have seen how mountains have influence to diminish the inclination towards suicide. As to the figures of the third group, which are higher than those of the second, they also may be explained by the exaggerated returns of those provinces of Emilia where pellagra is endemic. It is worthy of remark that almost all the exceptions to this law are found in the northern provinces, and very few in the south, perhaps because the other general influences, such as that of race, religion, and developement of industry, make themselves more felt among the educated population of northern Italy. The anomaly of the northern provinces is repeated in the returns of those divisions, where, following the difference of degree of culture, we find only a general, but still uniform relation with the number of the suicides. In the first group of divisions, from 500 to 698 uneducated persons in the 1,000, the average of suicides is 38·87; in the second group, from 717 to 816, 44·99; in the third group, from 824 to 868, 21·12; and lastly, in the fourth group, from 872 to 898, it is only 13·77.

But French statistics are somewhat less significant than the Italian, although these also show in the aggregate of comparative data a direct, more often than an inverse ratio between suicide and culture. The differences between the departments are so weighty, that on examining the great regions of France, education would appear to have no influence on the suicidal tendency. In fact, availing ourselves of the data furnished by Guerry, Lisle, and Blanc, concerning the education of conscripts, we find the following :—

	According to Guerry		According to Lisle		According to Blanc	
	Educated in 100 inhab. (1827–30)	Suicides among inhab. (1835–43)	Educated in 100 conscripts (1836–48)	Suicides among inhab. (1836–52)	Educated in 100 conscripts (1836–48)	Suicides per mil. men (1844–58)
East . . .	55	15,980	75	13,855	75	72
North . . .	52	7,560	73	6,483	73	155
South . . .	33	23,601	49	20,457	49	49
West . . .	27	20,708	43	18,484	43	54
Centre . . .	25	19,123	39	16,443	39	61
Dep. of the Seine	71	?	84	2,377	84	564

The north and the east, with fewer uneducated, have also more suicides, but the centre, with the fewest educated, has an average above that of the west and south, nor do the figures of the five regions show much regularity. Nevertheless, on considering the single departments, the result will be found more in agreement with our law. Indeed, almost all the departments with the highest proportions of suicides, will give, according to Wagner, at least 50 per cent. of educated conscripts, as may be seen in the following synopsis, where the averages of suicide are on the million of males for the period 1844–58 (H. Blanc), and the departments are divided in groups according to education :—

Number of departments	Suicides per million men.	Proportion per 100 educated conscripts							
		Under 20	21–30	31–40	41–50	51–60	61–70	71–80	above 90
		As many departments of the three groups in each class :							
I. 29	From 564 to 142	—	—	1	3	6	6	6	7
II. 29	„ 141 „ 79	—	6	2	6	4	2	2	7
III. 28	„ 77 „ 30	1	1	8	7	7	3	1	—
I-III. 86	„ 564 „ 30	1	7	11	16	17	11	9	14

It is seen that in the first group of twenty-nine departments, in 564 to 142, the education of the conscripts was good, that is, it exceeded 60 per cent. at least in *nineteen*, which is 65 per cent.; on the other hand in the third group of twenty-eight departments, with less than 77 suicides per million, the conscripts were always more ignorant, there being fully *seventeen* (60 per cent.) in which the educated men were less than 50 per cent.

But what better proof of the direct relation between general culture and suicide can we have, than that drawn from the contemporary increase of the former, in civilized countries, step by step with the extension of the latter through all classes? The increase of education goes *pari passu* with that of madness, and it is not surprising if the same occurs with regard to suicide, and that Brouc many years ago asserted that it was possible to deduce the average of voluntary deaths in a given country from the number of pupils in the public schools. Brouc was confirmed in this opinion by certain statistical data furnished by Balbi. Confronting the average of the youths, who during 1827–34 attended the public schools of various American cities and of some European States, with that of the suicides of the same period, Brouc obtained the following results:—

1827-34	Number of scholars per inhabitants	Number of suicides per inhabitants	Average of scholars	Average of suicides
City of New York .	1 : 3·9	1 : 7,797		
„ Boston . .	1 : 3·5	1 : 12,500	1 : 5·6	1 : 12,644
„ Philadelphia .	1 : 8·0	1 : 15,875		
Prussia	1 : 7·0	1 : 14,404		
Austria . . .	1 : 13·0	1 : 20,900		
France	1 : 17·0	1 : 20,740	1 : 132	1 : 30,274
Russia	1 : 367·0	1 : 49,182		

In Italy also, where since 1800 all questions touching upon public instruction have been studied with so much interest, it has been found that the increase of suicides is exactly parallel to that of the pupils in the schools, whilst popular education has advanced more in Northern Italy, that is to say, in Lombardy, Piedmont, Emilia, and Tuscany, which likewise suffer the heaviest increase of voluntary deaths. Here follows the comparison of the numbers of scholars in the public schools with those of suicides :—

	Scholars per 100 inhab.	Suicides per million inhab.		Scholars per 100 inhab.	Suicides per million inhab.
1863–64 . . .	5·44	(29·2)	1871–72 . . .	6·44	32·0
1865–66 . . .	5·59	28·7	1873–74 . . .	6·80	36·5
1867–68 . . .	6·05	31·0	1875–76 . . .	7·15	35·3
1869–70 . . .	6·06	27·5	1877 . . .	(7·45)	40·6

It is judged, certainly with much partiality for our customs, that the periodical press is the surest expression of general culture, inasmuch as the journals are created by the activity of ideas, the multiplication of intellectual wants, by the progress of science and that fruitful principle of civilization, division of labour. Availing ourselves of this portion to estimate the degree of popular education, we find another direct relation of the average of suicides with that of periodical literature. The following table shows the proportions of the periodical press to the inhabitants of various countries, issued by the central Austrian Commission (*Die periodische Presse*, Wien 1875)

and the returns of the daily publications of Italy (*General Calendar of the Kingdom*, 1876).

TABLE XVIII.—*Comparison between Suicide and Periodical Literature in Europe.*

COUNTRIES	Periodicals, journals			Suicides		Place occup. in the returns	
	Year	Actual number	Prop. 1 on inhab.	Period	Per million	By periodicals	By suicides
A.—STATES OF EUROPE.							
Switzerland	1872	412	6,479	1876	196	1	2
Denmark	„	200	8,924	1871–76	258	2	1
Germany	„	2,816	14,581	1871–76	187	3	3
Holland	„	232	16,551	1869–72	35	4	11
Belgium	1871	286	17,787	1871–75	68	5	7
France	1872	2,024	17,837	1872–76	150	6	4
Sweden	1871	216	19,677	1871–75	81	7	5
Great Britain	1872	1,855	19,954	1871–76	68	8	8
Cisleithan Austria	„	885	24,823	1864–72	72	9	6
Italy	1875	914	29,323	1874–77	37	10	10
Spain	1872	520	32,376	1866–70	17	11	14
Hungary	1873	322	34,747	1864–65	52	12	9
Portugal	„	83	52,625	1850–54	13	13	15
Russia	1874	472	150,792	1873–75	28	14	12
Roumania	1870	22	209,340	1864?	25	15	13
B.—REGIONS OF ITALY.							
Tuscany	1875	50	17,305	1873–77	50·9	1	2
Liguria	„	133	22,520	„	50·7	2	3
Lombardy	„	145	24,523	„	44·2	3	4
Emilia, Marches, Rome prov. and Umbria	„	171	26,238	„	40·7	4	5
Sicily	„	76	35,508	„	18·7	5	6
Venetia	„	72	37,964	„	51·6	6	1
Naples	„	126	58,108	„	16·9	7	7
Sardinia	„	9	72,714	„	12·5	8	8

It is to be noticed however in the table, which is only of approximate worth, that regard is had only to the number, not to the importance of the journals, as if they were so many homogeneous units, capable of addition and comparison; thus, the 'Times' counts for no more than the smallest local newspaper, and journals, reviews, and periodicals of all kinds; political, scientific, industrial, literary, agricultural, religious, humorous, medical, and illustrated, are all added together. It is in fact, by their totality, that the general culture of a country is shown,

and the part which it takes in the developement of modern thought and in intellectual improvement.

The scale of these countries according to suicide is nearly the same as that of the periodical press. The gravest exception is that of Holland, which stands fourth for the proportional number of journals, and on the contrary, eleventh for the average of voluntary deaths, but we spoke elsewhere of the deficiency of its statistics. On the other hand, the ethnical and political differences between the various States may perhaps explain the few anomalies in our table. But where we find general uniform conditions of race, customs, and interests, the periodical press, as an indication of cultivation and psychical developement, has always a direct relation with the numbers of voluntary deaths. It is sufficient to examine the various regions of Italy (B. Table XVIII.) to be convinced of this; their numbers are the most significant that could be desired. The sole exception of Venetia, which from sixth in the returns of the press average becomes first in that of suicides, is perhaps due to the endemic pellagra, which in the five years 1873–77 raised the number excessively in the country districts; so true is this, that in the returns for the fourteen years 1864–77 Venetia would stand fifth.

The number, however, is not sufficient to distinguish the character and psychological importance of the press; we should require the full data as to the nature, duration, scale, diffusion, the commencement and end of the journals and reviews. But it will be understood how so detailed an enquiry is almost impossible; the general character alone can be described by statistics, and in harmony with that, must be deduced the method by which the intellectual life of a country is shown. The predominance of political journals, if it shows the activity of liberal ideas,

reveals likewise a greater superficiality of culture, whilst the superabundance of scientific and literary periodicals, the reviews, and all the publications intended to point out the true progress of the human mind, marks a more profound exercise of the cerebral activities. In the table of the periodical Italian prints for 1875, we find distinguished the various kinds of journals and reviews (*'Arch. di Stat.'* I. i.), which may be distributed into five principal groups; 1st, political; 2nd, agricultural, industrial, commercial, and administrative; 3rd, literary, artistic, scientific, medical, and legal; 4th, illustrated, humorous, musical, and theatrical; 5th, the religious. These are the number and proportions of these five groups of periodicals in places in the kingdom of Italy:—

	Actual number					Proportions per 100				
	I.	II.	III.	IV.	V.	I.	II.	III.	IV.	V.
Piedmont	42	35	42	4	10	32	26	32	3	7
Liguria	21	8	12	4	5	42	16	24	8	10
Lombardy	40	34	42	23	6	28	23	29	16	4
Venetia	19	17	17	6	13	26	24	24	8	18
Emilia, Marches, Umbria and Rome prov.	64	37	36	10	24	37	22	21	6	14
Tuscany	39	25	39	10	19	30	19	30	7	14
Territory of Naples	69	22	15	10	10	55	17	12	8	8
Sicily	41	17	10	5	3	54	22	13	7	4
Sardinia	8	—	—	1	—	88	—	—	12	—
Kingdom of Italy	343	195	213	73	90	38	21	23	8	6

Where suicides are most frequent, that is in northern and central Italy, the proportion of scientific and literary journals, and those on economical affairs, is also high; in the southern regions of the kingdom, on the contrary, with few voluntary deaths, the intellectual activity, ardent but less profound, shows itself by a preference for the political journals destined to the short life of one day. This fact will prove that suicide increases there where psychical wants multiply and expand, and where man exercises his own brain in labour, requiring a greater

expenditure of functional energy. It is moreover noteworthy that Venetia, although it has the richest religious literature and the poorest political, should, on the contrary, have given amongst those five years a number of voluntary deaths above its normal average.

§ 4. *Public morality.*

It is easy to understand how the influence which the conditions of public morals exert over the number of suicides may elude comparative sociology. First of all, every attempt to define absolutely what is understood by public morals is vain, because into this definition must enter the crimes, customs, habitual passions, the laws, and the conditions of family life, and the way in which political and civil liberties are respected and enjoyed. In the meantime it is certain that the people most devoted to the moral sentiment and who feel the domestic affections most keenly (Germans and Scandinavians) are not those who have the least suicidal tendency, but rather the contrary. In sociology, however, these sentimental and empirical comparisons are of no value; it is necessary to appeal to facts, and in our case to figures. But these unfortunately are few and contradictory, and among social phenomena expressive of the degree of morality of a country, we can have regard only to those which fall objectively upon the senses, that is to say, the statistics of crimes, and of illegitimate births.

These latter would be good data whereby to judge of the morality of a country if their variation according to the variations of the laws and the differences existing between our investigations and those of Wagner, did not prove that their divergence of proportion in different countries is without direct relation to the number of

suicides. It is clear that the two social phenomena have different significations, that they are in fact distinct functions of the social organism. Whilst in Italy such births have increased year by year in the last period 1865–76 (from 4·97 per cent. to 7·03) and also a little in Sweden (from 9·26 to 10·02), they either scarcely oscillate, as in France, Belgium, Switzerland, Holland, Norway, and Spain, or they diminish, as in England and Wales (from 6·22 to 4·68 per cent.), Prussia (from 8·20 to 7·36), Bavaria (from 22·47 to 12·86), Cisleithan Austria (from 14·55 to 12·36), Denmark (from 11·81 to 9·98), and least of all in Hungary (from 8·6 to 6·7); although suicide shows an extraordinary increase in all the other States. Somewhat less contradictory is the relation which the *average* of suicides has in the various countries with that of illegitimate births. With regard to nationalities and religions there would be a perfectly direct relation: in fact the Germans and Protestants, amongst whom are more suicides, give in the aggregate more illegitimate children. The following data (Hausner) are uncertain, but make the fore-mentioned fact evident:

Nations	Suicides per million	One illeg. per legit.	Religions	Suicides per million	One illeg. per legit.
Slavs . . .	36	18·3	Orthodox Greeks .	40	20·40
Latins . . .	60	16·3	Catholics . .	58	11·15
Germans . . .	147	8·6	Protestants . .	190	10·35
Germans proper .	165	6·5			

But if we confront countries and regions we shall find that this relation subsists scarcely among four or five. We will make use of data taken in part from Wagner and in part from Bodio, noting that the result would be the same, even if we had the advantage of more homogeneous data. The averages of the illegitimate births refer to the periods given opposite the name of each country.

Countries		Illeg. per 100 births	Order of numbers		Countries		Illeg. per 100 births	Order of numbers	
			per suicides	per illeg. births				per suicides	per illeg. births
Saxony	1847–56[1]	14·6	1	5	Liguria	1863–71	4·68	19	30
S. Altenburg	1859–61	17·1	2	2	Tuscany	„	7·58	20	16
S. Meiningen	„	19·6	3	1	Lombardy	„	4·68	21	20
Denmark	1865–76	11·05	4	8	Venetia	„	3·86	22	34
Switzerland	1872–76	4·8	5	27	Piedmont	„	4·34	23	33
Würtemberg	1854–56	14·3	6	6	Marches	„	6·80	24	20
Baden	1858–60	16·9	7	3	Holland	1865–76	3·52	25	36
France	1865–76	7·38	8	17	Umbria	1863–71	9·44	26	10
Prussia	„	7·75	9	15	Finland	1869–76	8·31	27	13
Austria, Cisl.	„	13·42	10	7	Roumania	1870–76	3·65	28	35
Bavaria	„	16·57	11	4	Basilicata	1863–71	4·70	29	28
Transylvania	1858–59	6·2	12	21	Sicily	„	7·77	30	14
Sweden	1875–76	10·26	13	9	Spain	1868	5·53	31	24
Norway	„	8·62	14	11	Campania	1863–71	5·08	32	25
England	„	5·54	15	23	Puglia	„	5·02	33	26
Belgium	„	7·05	16	18	Abruzzi	„	4·44	34	31
Emilia	1863–71	5·91	17	22	Sardinia	„	4·41	35	32
Hungary	1865–76	7·05	18	19	Calabria	„	8·43	36	12

[1] The averages of Saxony, Saxe Meiningen, Saxe Altenburg, Baden, Würtemberg, and Transylvania, taken from Wagner, are calculated on all who were born, including the still-born; in the other countries only on the living births (*Bodio*, loc. cit. p. lxxx.)

We see here very little equality in the two returns, as will be seen most of all in the averages of the Italian divisions. Wagner also comparing the suicides with the illegitimate births in the German provinces and the entire centre of Europe has found the proportions of the latter vary without any analogy with those of the suicides (Tab. 65 loc. cit.) But there is no need to be surprised at this contradiction, since the differences in the proportion of illegitimate births depend on the differences in the laws, customs, rules of civil rights, and the position given to the Church within the State; therefore they cannot be used as a test of comparative morality.

Perhaps comparison with criminality may lead to more certain results. The different and irregular information which we possess of criminal statistics in various States afford scanty help towards making exact deductions;

nevertheless it seems possible briefly to investigate whether the general progress of crimes corresponds to that of suicides, and if by quantitative or qualitative specificness there is any relation between the two kinds of social phenomena.

Whilst suicide increases every year throughout Europe, exclusive of Norway and Dalmatia, crime also increases in France, Italy, Belgium, Austria, Bavaria, Germany, Switzerland, and Massachusetts; but, on the other hand, it decreases very manifestly in England and the Low Countries. When Lord Aberdeen inaugurated the Congress of Social Science in 1875, he demonstrated the moral improvement of the English population.[1]

Unless it be that the improvement as to suicide in England is scarcely perceptible indeed, there is no class of crime more regular, and which remains from year to year more nearly stationary (Buckle). *Where, on the contrary, the annual average of voluntary deaths offers a very perceptible increase, a synchronous increase of crime is also generally seen.* In proof of this parallelism we will cite the criminal statistics of Italy and Austria, although the necessary homogeneity of the information is wanting.

In Italy the augmentation of criminal informations and convictions was as follows in the years 1866–75 compared with that of suicides, and made the numbers of the first year equal to 100 (see Beltrani-Scalia, *Rif. penit. in Italia*, second part, 1879).

[1] We give in a note the numbers of the twenty years, 1854–74, relating to the number of convicted criminals in England:

1854	23,410	1861	14,217	1868	14,485
1855	20,818	1862	16,095	1869	14,008
1856	15,098	1863	16,149	1870	12,696
1857	16,180	1864	14,654	1871	11,710
1858	14,443	1865	15,284	1872	10,832
1859	13,247	1866	14,008	1873	10,634
1860	12,388	1867	13,798	1874	11,483

Italy	Accusations		Crimes		Suicides	
	Numbers	Aug. per 100	Number of accused	Aug. per cent. of crimes	Numbers	Aug. per cent.
1866	125,406	100	—	—	(588) (1864)	100
1867	136,534	108	—	—	753	104·8
1868	141,794	113	—	—	784	109·2
1869	158,601	126	183,585	100	633	88·1
1870	155,570	124	177,358	96	788	109·7
1871	159,791	127	245,579	133	836	116·4
1872	201,341	160	249,982	136	890	123·9
1873	192,051	153	—	—	975	135·7
1874	202,457	161	223,492	122	1,015	141·3
1875	—	—	256,230	139	922	128·4

With regard to Austria, Messedaglia has already proved the annual increase of the accused and condemned; the former were 1 in 1,238 inhabitants in 1856, and amounted already to 1 in 1,082 in 1862. Thus the greatest increase in voluntary deaths has been equal to the increase of those condemned to death, and these, taken exclusively from among the greatest criminals, serve to show the deterioration of public morals (Ficker, *Statist. Monatschrift*, 1878).

Austria	Condemned to capital punishment. Annual average	Suicides. Increase per cent.	Austria	Condemned to capital punishment. Annual average	Suicides. Increase per cent.
1822–25	28·5	100·0	1851–55	55·4	143·8
1826–30	26·4	111·6	1856–60	31·6	172·5
1831–35	36·0	135·2	1861–65	41·8	224·7
1836–40	35·8	112·9	1866–70	47·0	307·5
1841–45	48·6	128·5	1871–75	64·4	408·8
1846–50	35·7	167·1	1876–77	119·5	621·0

There does not seem to be an exact relation between specific crime and the suicidal tendency of the various nations. Countries with a high proportion of delinquents, for instance, Spain and Italy (1 condemned in 1875 out of 8,135 inhabitants), have few voluntary deaths, which gives rise to the supposition that a prevalence of crime almost excludes suicide in the south of Europe; but when

we go on to comparisons with other States we find Denmark (1 condemned in 111,474 inhabitants) and England (1 condemned in 132,791) with a far smaller criminal population, but the former with very frequent suicides, the latter with scarcely double the number of the Italian average. Comparisons become much more confused in Prussia (1 condemned in the 42,966 inhabitants), Austria (1 condemned in 24,980), Ireland (1 in 84,419), and Sweden (1 in 22,487), where the degree of criminality never corresponds to the intensity of voluntary deaths. But if from an international comparison, entirely deprived of necessary homogeneity, we proceed to the study of different regions of a State, facts are a little more decisive. Let us take Italian statistics as those which are most interesting because of the grave differences of criminals between one region and another. Availing ourselves of data relating only to the years 1873–74 and to the greatest crimes, such as homicide, wounding, highway robbery, and theft, as published in the official reports on Public Security, let us confront with their annual average proportion on 100,000 inhabitants that of the suicides during the same two years.

Italy	Grave crimes 1873–74		Suicides 1873–74	
	Actual average	On 100,000 inhabitants	Actual average	Per million inhabitants
Piedmont and Liguria	13,316	222·1	168	41·7
Lombardy	8,984	281·5	159	45·0
Venetia	9,966	338·3	143	53·0
Emilia, Marches, Umbria, Rome	17,299	392·1	273	51·6
Tuscany	7,798	363·8	96	43·6
Naples	31,140	434·0	111	14·4
Sicily	11,183	432·8	39·5	14·9
Sardinia	2,109	331·2	6	9·2

The inverse relation is seen in south Italy, where crime is very common and suicide rare, but the great anomaly of Sardinia and the position taken in the two returns

by central Italy with respect to the north, deprives the result of almost all value.

On the other hand, a more direct coincidence with the average of crimes is obtained on account of which the accusation of the Council Chambers was pronounced in 1874 (*Official Statistics*); in fact, the *maximum* are those of the provinces of Puglia and the Basilicata (10·14 accused on 10,000 inhabitants), the Calabrian (6·21), Abruzzi (5·77), Western Sicily (5·06), whilst the *minimum* are those of the Lombard provinces (from 0·77 to 0·64), the Piedmontese (1·00), Venetian (from 1·09), the Emilian (0·99 less Bologna and Romania); whilst the mean number occurs in the Marches (1·83), Tuscany (1·55), Campania (3·9), Eastern Sicily (2·80), and Rome (4·86), which regions have also the mean numbers of suicides.

From which the substitution of crime for suicide would appear to be confirmed as we advance gradually to the south. The same predominance of crime compared with the rest of France is to be seen in Corsica, which is little afflicted by suicides; but in the other parts of the Republic the relation entirely ceases.

Nevertheless, the differences in criminality according to religion give rise to the supposition that there is a greater constancy in the antagonism between it and suicide. It is, however, the Catholics who furnish the greater number of delinquents; but we found, on the other hand, that in these countries and everywhere else suicide is less frequent amongst Catholics than amongst Protestants.

There is instead similarity in the monthly distributions, at least with regard to the crimes which are more directly connected with human passions, that is to say, with crimes against the person, rape, poisoning, abortion, and indecent assaults: the influences which account for the increase of criminality in summer are the same as

those worked out by us when studying the monthly distribution of suicides. In the warm season the passions are kindled, conflicts are increased among mankind, and the organism feels more keenly its contact with external nature. But the relation which in the case of etiological affinity is direct in the monthly distribution, is inverse in the geographical and ethnical. The regions and States which are pre-eminent in crimes of blood are indeed those where suicide is scarce, as is sufficiently seen by confronting Italy and Spain with the rest of Europe.

In France, crimes against the person are more than twice as many in the south (4·9) as in the centre and north (2·7 and 2·8); *vice versâ*, crimes against property are more frequent in the north compared with the other two regions (Guerry). The tendency towards the first is then inverse with that of the suicides. Despine also (*Psychol. nat.* iii. 78) found that in the French departments the maximum of homicides coincided with the minimum of voluntary deaths; in fourteen departments, in which out of 100 accused persons the greater proportion were for crimes of blood, the suicides were **30** per million inhabitants, whilst in fourteen other departments, with a smaller average of the same crimes, the suicides amounted to **82** per million (1852). The same author assigns to the department of the Seine, out of 100 accusations, seventeen for crimes against the person, and the average of 427 suicides per million; to Corsica, on the contrary, he assigns eighty-three accusations for the same crimes on the 100, and scarcely eighteen suicides. In 1872 the French penal statistics did not show a regular inverse ratio, but nevertheless in the aggregate of the judicial circuits those which had the highest proportion of condemnations by the assizes for crimes against the person, had generally fewer suicides (121·9 per million) than the

others, with fewer crimes against the person (141·1 per million).

Circuits of the Courts of Appeal	Sentenced per cent.		Suicides per million 1872-76	Circuits of the Courts of Appeal	Sentenced per cent.		Suicides per million 1872-76
	Against the person	Against property			Against the person	Against property	
1. Bastia .	89·2	10·8	28·6	14. Douay .	36·4	63·6	128·3
2. Besançon .	59·0	41·0	118·3	15. Caen .	35·0	65·0	109·6
3. Nancy .	59·0	41·0	165·2	16. Lyon .	31·0	66·0	121·9
4. Pau . .	51·7	48·3	62·4	17. Bordeaux .	33·0	67·0	134·0
5. Limoges .	47·8	52·2	79·8	18. Angers .	31·3	68·7	126·5
6. Nîmes .	46·5	53·5	115·6	19. Aix . .	29·4	70·6	188·0
7. Poitiers .	43·9	56·1	107·7	20. Dijon .	29·0	71·0	157·9
8. Amiens .	43·4	56·6	388·1	21. Rennes .	28·3	71·7	74·2
9. Montpellier	42·3	57·7	67·1	22. Toulouse .	27·7	72·3	56·4
10. Grenoble .	38·4	61·6	119·8	23. Bourges .	24·3	75·7	100·9
11. Chambéry .	37·5	62·5	62·6	24. Paris . .	23·2	76·8	318·5
12. Orléans .	37·0	63·0	201·9	25. Riom . .	18·5	81·5	69·3
13. Agen . .	37·0	63·0	68·4	26. Rouen .	18·5	81·5	247·7

In the empire of Austria, Mayr perceived that suicides diminished, and at the same time homicides and woundings predominated in the non-German countries, and Messedaglia noticed that crimes of theft prevailed in Buckovina, Bohemia, Hungary, and Austria (68 to 76 per cent.), where suicide is frequent, compared to Dalmatia and Tyrol (32 per cent.), where it is rare. Silesia-Moravia, which has so many voluntary deaths, gives the minimum of great bodily injuries (1·36 per cent.), whilst the maximum, in the inverse to suicide, is to be found in Carniola and Tyrol (28 to 21 per cent.) Of the circles of Bavaria, that of Landshut or Lower Bavaria gives the fewest suicides, 33 per million, and the greatest number of crimes of blood (41 per cent.); thefts and frauds predominate in the neighbouring circles of Upper Bavaria and in Suabia (42 per cent.), which nevertheless have 80 to 82 voluntary deaths. Also in the Netherlands, in the returns of Quetelet, the crimes against property predominate in the provinces of Frisia, Zealand, Groningen,

Drenthe, North Holland, and Utrecht, which also returns many suicides; on the other hand, crimes of blood are more numerous in North Brabant, in Gueldres, and Over-Yssel, where we find the lowest returns.

But it is in Italy that the opposition between suicide and homicide gains incontestable evidence, because the information which has been hitherto gathered gives confirmation that '*in those divisions where crimes against property predominate suicides are more frequent than where crimes of blood are frequent.*' We will limit ourselves to placing before the reader in proof of this a synopsis in which is shown the objective criminality of the different judicial districts of the kingdom (*Procure generali*) by means of the numbers of the principal crimes

Districts (Procure generali)	Suicides per million inhabitants	Accused in all on 100,000 inhabitants	Crimes against the person		Crimes against property			Per 100 accused against the person and property
			Homicides of various kinds	Simple homicide, hanging, mortal wounds, and other crimes	Highway robberies with homicide	Highway robberies, extortions, robbery without homicide	Thefts of various kinds, &c.	
Venetia	39·6	37·8	0·9	4·3	—	0·9	28·4	564
Brescia	33·8	33·8	1·2	6·4	0·4	0·9	20·2	278
Milan	38·0	35·7	1·3	3·5	0·1	1·3	16·3	366
Casale	41·5	37·4	1·2	7·2	—	1·7	18·4	239
Genoa	31·3	49·6	2·6	7·1	—	1·0	29·5	314
Turin	31·6	33·4	0·5	7·3	—	2·2	14·2	210
Florence	40·0	11·9	0·8	2·0	0·3	1·8	2·7	160
Lucca	46·0	14·0	0·8	4·6	—	0·3	4·1	81
Bologna	67·5	73·4	1·1	15·3	4·8	0·3	26·4	162
Parma	51·0	42·1	1·3	5·5	0·2	1·2	25·7	395
Ancona	30·3	59·0	3·0	20·9	—	1·9	23·5	106
Rome	41·7	114·7	3·1	39·0	0·5	3·5	57·7	145
Aquila	16·0	88·2	2·0	42·0	0·1	1·6	29·1	69
Naples	18·3	100·5	3·5	42·9	0·3	4·7	37·0	89
Trani	16·3	58·8	2·0	18·1	0·9	1·3	28·7	150
Catanzaro	8·1	195·9	6·9	82·4	0·1	7·5	56·7	72
Catania	26·5	76·6	3·2	30·1	0·8	4·2	28·7	98
Messina	12·5	69·4	1·9	16·7	0·2	1·2	28·8	161
Palermo	17·0	165·6	2·1	67·9	1·1	11·4	47·8	84
Cagliari	13·4	68·6	4·9	9·4	0·5	2·5	39·9	295
Kingdom of Italy	31·0	69·2	2·1	16·0	0·5	2·8	28·3	171

proved by the Section or Chamber of Accusation and joined to the last period of preliminary examination in the year 1875. The number of suicides in each district is calculated on the averages of 1864–76 of the corresponding provinces.

§ 5. *General economical conditions.*

Agriculture, commerce, and trade are, like education, expressions of the degree of civilisation of a people, and Petit, when studying their influence on suicide, observed that the French departments with the greatest economical developement are also most afflicted with voluntary deaths.

The relation between the number of suicides and the general economical conditions is demonstrated by the continuous growth of the former in the century which beyond all others has witnessed the developement of commercial relations and the perfecting of the industrial arts by science. It seems almost as if the character of our epoch is reflected in that phenomenon of social life, namely, the increase of psychical aberrations; nay, this reflection is such, that by the variable average alone either of the mad or suicides, or of criminals, the economical well-being of a year or a country can be determined. The years of agricultural distress and misery and of financial crises constantly raise the proportions of mental diseases, and all that causes retrogression in a State or in a class of men, is a cause of suicide. It will suffice to mention the dearness of necessary food, want of work, commercial stagnation, bankruptcy, the lowering of the exchange, and especially the depreciation of the value of money. Nor has the influence been trifling which the substitution of machine for hand work has had on the

number of suicides and cases of madness in the industrial and most populated regions of central Europe. Wagner, who as a profound economist has studied attentively the influence of these conditions in his book (I. cit. pp. 136–7, 237–41), even ascribes a part of the increase of suicides to the improvement in the means of communication and to the free trade which has levelled and raised everywhere the cost of prime necessaries, by distributing and multiplying riches, but giving them at the same time a less stable value. It may be conjectured that the evil influence exercised by the oscillations of prices, and the forced currency to which the Governments in late times have had recourse, is equally great. Again, the high premium on paper money appears to coincide with a remarkable increase in suicides, such as took place in Austria soon after the Italian war of 1859 (Wagner).

It is necessary, however, to remember that the influence of economical crises is not shown at the period of the event, but that a certain time is necessary for its disclosure. Thus it is neither the actual years of war nor the bad winters which show the sudden increase of suicides or of alienation of mind. A certain time is necessary for the social organism as for the individual during which the disturbance produced by evil influence is being worked out. Throughout Europe it was not the year of the Crimean war, but the year after, which by consecutive crises on the Exchange and by the worst turn in economical affairs produced a rate of violent deaths above that of the preceding or following years. In the Austrian statistics the years 1860 and 1861 are those which show by the number of suicides the moral reaction of the events of 1858–59, as those of France of 1872 and 1873 show many more admissions into the asylums for the insane, and more suicides, than the years of the war 1870–

71. Hence it is that the influence of the causes under discussion often escapes from objective examination or appears insignificant; nor could it be otherwise, suicide being a complex phenomenon, prepared gradually and by causes much more continual and efficacious in the social organism. After all, the figures, though few, show the effect of general economical perturbations, especially on the dearness of food produced by agricultural crises.

The two years 1860–61, distinguished by high prices in western and middle Europe, showed a remarkable increase of suicides in France, Belgium, Würtemberg, England, Austria, Sweden, and Hanover (see Table 1). The same was observed in the years following the war of 1870–1 in Germany, which, instead of being enriched by victory, has, on the contrary, been impoverished. The crisis on the Exchange in 1873–74 produced in Austria an unforeseen leap from 1,800 suicides annually to 2,200, and even to 2,500, and in Vienna alone, from an average of 136 to one of 230. And it was the dearness of food in 1873 and 1875 which was accompanied in Italy by a similar redoubling of such deaths. Within the last half century the years 1846–47 and 1854–56 were throughout Europe noteworthy periods of scarcity, whilst 1848–50, notwithstanding revolutions and wars, produced excellent harvests. Well then, as compared to the two preceding years, 1846–47 showed an increase of suicide in all countries except Sweden and Bavaria, and the same, only in greater intensity, was seen in 1854 with respect to 1852–53, Scandinavia alone excluded (Wagner, Table 24, I. cit.)

We have gathered together some data on the annual average cost of wheat and grains during the two years 1864–65 in 59 provinces of the Kingdom of Italy, and we are able to prove that the relation is not direct between

the cost of bread and the number of suicides, but rather that the exceptions are numerous; yet, considering the whole of Italy, in the 24 provinces which suffered a rise of price in wheat from 11 centesimi to 13 lire 25 centesimi the hectolitre, suicides increased in 12 (50 per cent.), remained stationary in 3 (12·5 per cent.), and diminished in 9 (37·5 per cent.); whilst on the contrary in 34 provinces where the price fell from 3 centesimi to 4 lire 93 centesimi on the hectolitre, in 18 provinces suicides were observed to diminish in 1865 (54 per cent.), 3 to remain at the same number (9 per cent.), and lastly, 12 to increase (37 per cent.)

Of this economical influence we have other clear proofs by confronting later years, whether in single provinces or in the whole State. The year 1869 shows a noteworthy decrease of voluntary deaths compared with 1868, from 784 suicides to 633. And in all Italy the economical and agricultural conditions of that year were most favourable. And so compared with 1873–74, years of general scarcity in Italy and of very high prices for absolutely necessary food, 1875, on the contrary, favoured by the best economical conditions and with bread at the lowest price, gave also fewer suicides (922 against 975·1015).

Mayr, too, has come to the same conclusions in studying the increase and distribution of suicides in Bavaria and Austria. In a recent work (*Die Gesetzmässigkeit im Gesellschaftsleben*, 1877) he has published a diagram of the prices of commodities and on the criminality and emigration in Rhenish Bavaria from 1835 to 1861; the parallelism between the number of crimes and emigrants, and the cost of rye is astonishing, but if the curve of suicide had been added to these, the result would have been the same. In fact, in the years 1847–49 the price

of rye was very low compared with 1844–46 (from 212 *sechser*, or pieces of 6 soldi or pennies, it fell to 85); suicides also diminished from 250 to 189. On the other hand, in 1851–55 another rise of price in rye (up to 235 sechser) was accompanied by a simultaneous increase of suicides, from 250 to 318. Mayr considers also that the very heavy increase of these kinds of deaths in Austria during the last years is due to the excessive dearness of food.

In France the annual production of corn diminished considerably in 1846, and the price rose on an average from 22 to 30 lire the hectolitre; and the year after suicides were one-fifth more than in the preceding years, to be once again lowered in 1847 with the fall in the price of bread. There was another increase in the numbers of suicides in the three years 1854–56, but again a scarce harvest corresponded to it with high prices (29 lire 13 centesimi the hectolitre of corn); and lastly, while 1868 showed 536 more suicides than the preceding years, this coincides with the very indifferent crops of 1867 and the dearness of grain (28 lire 90 cent.) (see Block, *Traité*, p. 496).

These approximations are not to be understood as interpretations of the social psychological phenomenon; they are analogies between the different factors of the life of nations, nor can statistics so exaggerate their significance as to make them out to be the efficient and immediate causes of suicide. But the numerous and repeated coincidences, and the constancy and the universality of evidence, give a right to perceive in them a causal momentum, sometimes of undoubted, if not of exclusive efficacy; all the more inasmuch as the same general economical conditions are likewise shown in the annual variations of births and deaths, of marriages and crimes.

The modification of the psychical conditions is less felt in countries with wide industrial and commercial developements, because in these the distribution of riches is not dependent on the raw products of the soil, and the rise of salaries keeping pace with the price of provisions partly neutralises the effect of the food crisis. Thus it happens, that industrial developement has a limited, nay, even a contradictory influence over the number of suicides. In Italy, Como, the seat of the silk trade, and Novara, with all its manufactures of tissues, have fewer suicides than the wild Sondrio; Lombardy, a region excelling in agriculture and industry, is surpassed by the purely agricultural Emilia. Genoa, which has more trade than all the other ports of Italy put together, stands with regard to suicides below Parma, Modena, and Ravenna, where industry is limited to agricultural products. In Germany similar contradictions exist; a country so eminently industrial as Saxony furnishes more suicides than Hanover and Mecklenburg, which are both agricultural; but, on the other hand, the eastern part of Prussia, less populated and agricultural, gives more suicides than the west, which is thickly populated and industrial. In Austria, countries whose conditions are equally agricultural and industrial, as Istria and Gorizia on one side, and Carinthia and Carniola on the other, give very different returns. In France, Champagne, which is agricultural, has more suicides than Alsace and Picardy, which are industrial. Belgium and France, Denmark and Sweden, have nearly an equal economical developement, but grave differences in suicide. There is no connexion therefore between the general economical characteristics of a country and the moral tendency which we are studying. There is, on the contrary, a direct relation with those facilities of communication and progress, the railways, but the reason of this may

easily be understood. It consists in the part taken in modern life by the railways, which assist not so much by the easy exchange of products, as by the developement and widening of intellect, as is proved by the high level of culture in those countries where they are greatly extended. From a work treating of proportions published by the Commendatore Bodio (*Arch. di Statis.* i. 2, 1876) we transcribe the following table, indication being added of the respective places occupied in the two returns of the railways and of the suicides.

TABLE XIX.—*Relation between Suicide and the Means of Communication.*

Drawn from the Extension of the Railways. (1875).

STATES	Kilometres of railways in use at the end of 1875			Suicides	Place occupied in the returns	
	Every 10 square kilom.	Every 10,000 inhabitants	Proportional average between the two preceding returns	Proportional average per million in the last years	By the railways	By suicides
Belgium	11·96	6·70	8·95	68·5	1	8
Great Britain	8·53	7·86	8·19	66·3	2	9
Switzerland	4·99	7·74	6·21	196·0	3	2
Germany	5·17	6·76	5·91	160·0	4	3
France	4·08	5·98	4·94	150·0	5	4
Denmark	3·29	6·72	4·70	258·0	6	1
Austria-Hungary	2·78	4·73	3·62	122·0	7	5
Sweden	0·93	9·53	2·97	81·0	8	6
Italy	2·60	2·87	2·73	36·8	9	10
Spain	1·15	3·56	2·02	17·0	10	13
Roumania	1·01	2·73	1·66	25·0	11	12
Portugal	1·15	2·35	1·64	(17 ?)	12	14
Russia	0·37	2·51	0·09	29·0	13	11
Norway	0·17	3·09	0·07	75·0	14	7
Europe	1·45	4·74	2.62	—	—	—

The order is not the same, but in the aggregate of Europe it must be acknowledged that 'the States which are most advanced in railway developement, are those which generally have the larger averages of suicides.' The same result is obtained from the examination of the separate

regions of one State. In France the kilometrical maximum developement of railways is in the northern zone, as is the case in Italy, and in these regions the prevalence of suicide corresponds with that of the network of railways and of their commercial and passenger traffic compared to the population and the geographical superficies.

§ 6. *General political and psychological conditions.*

The part taken by citizens in public life, enhanced by the popular liberty of our age, is shown upon examination to be a predisposing and determining cause of suicide. An attentive study of the effects of various phases through which the political developement of the European nations has passed during the last fifty years, proves the influence of the great revolutions, wars, and the periods of reaction or enthusiasm, on the number of voluntary deaths. What results would there not be if the statistical returns extended also into old historic times.

Wheresoever and when the Governments, swallowing up every original enterprise, and persecuting independent characters and inventive genius, favoured the exclusive power of the State to the loss of the individual, suicide was rare; but it increased and became frequent as the forces, concentrated at first, were by degrees subdivided, and the idea of self-help penetrating the popular mind, produced practical results.

The proof of this greater individual participation in general political phases is to be found in the evident diminution of violent deaths during the periods of revolution and of war. In 1848–49, suicides diminished throughout almost the whole of Europe, but more particularly where the alternate changes in political struggles, of fanaticism and of reaction struck in a direct way on the senses;

that is to say, in Denmark, France, Prussia, Würtemberg, Saxony, Bavaria, and Austria; in Scandinavia and Belgium alone were they on the increase. The war of 1866 caused a similar decrease in Italy.

During the disastrous events of 1870–71, the upward movement of suicide and madness was stopped in France. As the admissions of the insane to the asylums were from July 1870 to December 1871 lower by 1,300 than those of the eighteen previous months (Lunier), so suicides decreased in 1870 by 1,041, and in 1871, 708 below the average of the four years 1866–69, which had been 5,198. The years, 1864 for Denmark, 1866 for Austria, 1870–71 for Germany, acted in the same direction.

Be it admitted that during the vicissitudes of a war all the mechanism of public administration suffers, and the registration of cases of death is carried on with less diligence; yet the fact is too constant not to have interest in our eyes. The psychological cause which produces this effect is undoubtedly the pre-occupation of minds in the fate of their country, whilst it would appear as if the greater troubles and afflictions, the loss of relations, physical and moral sufferings, the sudden changes of condition and fortune in consequence of military vicissitudes, commercial crises, and patriotic and political enthusiasm, ought, on the other hand, to produce an increase of psychical affections.

In itself the ordinary political condition of a country and the constitution of the State do not seem to have any important bearing upon suicide, which, in fact, is very frequent, equally in countries with a pure democratic Government as Switzerland, and in monarchies, whether absolute or representative. Judging by what is furnished by the statistics of England, Belgium, and Italy, the States with a purely liberal Government, and based on the right of

popular sovereignty, would have a noteworthy advantage over other States governed by a less liberal system; but the comparison is disturbed by a thousand other causes.

As to the influence which dominant ideas have on self-destruction, each great historical epoch exhibits one recurrent psychical phase of civil society, with suicide for its expression; and modern times are in this respect nothing but a return to those which are passed. For the pantheism and epicurism of the Romans and the Greeks we have substituted from the first a form of melancholia or a depressed state, *tædium vitæ*, which is idealized in *Werther*. Our generation, moreover, has arrived at a complete indifference in the matter of religion, without giving sufficient authority to positive philosophy which would tend to replace it, and without faith in the new moral utilitarianism on which human society must sooner or later be based. But meanwhile sensibility has become refined, while the brain, in an almost constant state of functional excitement, endures with greater damage those sufferings more profound than our fathers knew, and which lead political men of modern times so frequently to the threshold of the asylum and of the jail, or to the Morgue.

§ 4. *Density of Population.*

We have already seen how the increase of population is followed, and in almost the whole of Europe is surpassed by the general returns of suicide. In countries where the increase of inhabitants is assisted by perfection of production and by the ease of labour, the relative intensity or *density of the population*, which is in direct relation with the economical character of the country, is raised also. It is often the case that the density of population does not

seem to exercise much influence on the number of suicides, or at least that influence is not absolute, and that is comprehensible. The numbers which indicate the density of a population express an *average* condition which results from diverse and sometimes opposing elements; hence it is that comparisons between States have but a limited value, that average not taking count of the many differences which occur between one territory and another.

TABLE XX.—*Comparison of Suicide with the Density of Population in the States of Europe.*

COUNTRIES (with indications of the year to which the number of density refers)		Inhabitants per square kilom.	Number of order according to the density of population	Number of order according to the average of suicides
A.—WITH MORE THAN 100 INHABITANTS PER SQUARE KILOM.				
Belgium	1870	173	1	32
Kingdom of Saxony	1871	171	2	2
England	1871	150	3	33
Nassau	1871	116	4	12
Hessen-Cassel	1871	110	5	21
Netherlands	1870	110	6	36
Upper Saxony	1871	108	7	1
Alsace-Lorraine	1871	107	8	18
B.—FROM 76 TO 100 PER SQUARE KILOM.				
Lower Austria	1869	100	9	5
Silesia, Austria	1869	100	10	9
Bohemia	1869	99	11	13
Baden	1871	95	12	14
Würtemberg	1871	93	13	11
Moravia	1869	91	14	19
Italy	1871	91	15	37
Saxe-Meiningen	1871	76	16	3
C.—FROM 51 TO 75 PER SQUARE KILOM.				
Istria and Gorizia	1869	75	17	30
Prussia	1871	71	18	20
Galicia	1869	69	19	27
France	1872	68	20	16
Bavaria	1871	64	21	26
Switzerland	1870	64	22	8
Schleswig-Holstein	1871	57	23	6
Croatia-Slav.	1869	54	24	39
Hungary	1869	52	25	34
Hanover	1871	51	26	17
Styria	1869	51	27	24
D.—FROM 26 TO 50 PER SQUARE KILOM.				
Oldenburg	1871	50	28	7
Buckovina	1869	49	29	22
Denmark	1870	49	30	4
Carniola	1869	47	31	35
Portugal	1868	45	32	45
Lauenburg	1871	43	33	15
Mecklenburg	1871	42	34	10
Military Frontiers	1869	37	35	40
Dalmatia	1869	36	36	44
Carinthia	1869	34	37	25
Spain	1870	33	38	43
Tyrol and Vor.	1869	30	39	29
Roumania	1873	28	40	42
E.—WITH LESS THAN 25 PER SQUARE KILOM.				
Salzburg	1869	21	41	23
Russia	1870	14	42	41
Sweden	1871	10	43	28
Norway	1870	6	44	31
Finland	1867	5	45	38

Any way we may pursue this investigation, assuming at first that equal racial conditions of the various States exist, and afterwards we may come to a particular examination of their parts.

In the foregoing table, opposite the descending numbers according to density of population of the European States (from the 'Almanach de Gotha'), is indicated the place which they occupy in the scale of suicide according to the latest returns.

We must admit that a direct relation between density of inhabitants and suicide is wanting almost everywhere. Even dividing the scale of suicide into seven classes (1st, above 250; 2nd, from 151 to 250; 3rd, from 100 to 150; 4th, from 76 to 100; 5th, from 51 to 75; 6th, from 26 to 50; and 7th, under 25 suicides per million inhabitants), we see that the five groups of the country according to density are distributed as follows, compared with 1000:

Groups According to Density of Population	Number of countries in each group	Order according to intensity of suicide compared to per thousand							
		I.	II.	III.	IV.	V.	VI.	VII.	Total
I. With more than 100 inhabitants per square kilo . .	8	250	125	125	—	250	125	—	1,000
II. From 76–100 inhabitants per square kilo. . . .	8	250	500	125	—	—	125	—	1,000
III. From 51–75	11	—	182	273	273	182	91	—	1,000
IV. From 26–50	13	78	154	154	154	—	154	305	1,000
V. With less than 25 . . .	5	—	—	200	400	—	400	—	1,000

It is true that the countries with more than 76 inhabitants per square kilometre are generally in the three highest ranks of suicide, whilst the others with less than 50 and especially those with less than 25 inhabitants per square kilometre have returns rarely above 150 per million; but examining them separately, we find Belgium 1st according to density and 32nd according to suicide, and

Denmark 30th in the first scale, 4th in the second. Comparing the map of suicide in Europe with that of the specific density of the population given us by Behm and Wagner (*Die Bevölkerung der Erde*, Gotha, 1874), we find scarcely any correspondence except the darker tints of the valleys of the great rivers, such as the Rhine, Po, Danube, Seine, Rhône, and the Thames. The four European territories with the densest population are the valley of the Rhine with Holland and Belgium, Saxony, North Italy, and the English counties between the mouth of the Thames and Liverpool, while on the other hand the differences with regard to suicide are very great. But we must not be surprised at such results; the specific density of a population is a numerical datum, whose exactitude increases the more the tract of territory is narrowed. In this return the numerous natural, economical, and social conditions of the countries reported on are not expressed. It will be necessary to solve in the first place the economical problem given by Quetelet 'in what mode is every individual able to provide the means of existence' (Phys. Soc. i. 438); then to consider the power of comparison between historical and political developement, in the nature and geographical position of the territories, in the distribution of heat, whether in latitude or longitude, in the existence of large and commodious ways of communication, in the fertility or sterility of the country, in the prevailing forms of public and private rights, and lastly in the massing of the inhabitants in larger or smaller centres. To confront State with State is impossible; let us see if we restrict ourselves to narrower limits if we can compare the parts of one single country.

In Italy there exists a certain general agreement between suicide and the density of population, if we compare those regions of which the most populous, Lom-

bardy, Emilia, Piedmont, and Tuscany, have always high averages.

In the districts of Germany there is very nearly the same result; the kingdom of Saxony, Altenburg, Meiningen, Hessen-Nassau, Baden, and Würtemberg, with high averages of suicide, have also a denser population than Pomerania, Posen, and the Palatinate, with fewer violent deaths. The same in France, in the Isle de France, Normandy, Picardy, and Provence, compared with Auvergne, Gascony, and Guienne, and in Austria in Bohemia, Silesia, Moravia, and the Archduchy, against Carinthia, Carniola, Styria, and Tyrol.

But the relation disappears if we descend to a more minute examination of the provinces, the departments, and the districts. Wagner has given in illustration many figures relating to Germany, Austria, and France. We will make use of more numerous and in great part more recent data, placing before the reader in a long and detailed table the comparison between some European States.[1]

The comparison needs no explanation. In some provinces the direct relation between specific population and average of suicides continues; for example, in Middlesex, Warwick, Kent, and in Wales; in the French departments of the Seine and Seine-Inférieure and in

[1] The scale of suicide has reference to the following periods; England 1872–76, France 1868–69, Prussia 1856–60, Italy 1864–76. The scale of the population, relative or specific, is the result of the census taken nearest to the periods now indicated, that of England-Wales 1861, France 1866, Prussia 1867, and Italy 1871. The data for Austria are to be found in the preceding table. The averages of the French departments marked with an asterisk were computed on the suicides of the three years 1866–68, the data of 1868–69 being wanting. (See Lunier, *Du rôle que jouent les boissons alcooliques, &c. Ann. méd. psych.*, May, 1872.)

TABLE XXI.—*Relation of Suicide to the Density of Population in*

CLASSES AND NUMBER OF ORDER OF THE TERRITORIAL DIVISIONS			
According to the average of suicides per million inhabitants		According to the density of population. Inhabitants per square kilometre	
A.—ENGLAND AND WALES.			
I. ABOVE 100 PER MILLION.	18. Lincoln.	I. ABOVE 3,000 INHAB. PER SQUARE KILO.	20. Cornwall.
1. Rutland.	19. Somerset.	1. Middlesex.	V. FROM 75 TO 100.
2. Sussex.	20. Hereford.	II. FROM 200 TO 500.	21. Berks.
II. FROM 90 TO 100.	21. Suffolk.	2. Lancaster.	22. Sussex.
3. Middlesex.	22. Oxford.	3. Surrey.	23. Essex.
4. Cumberland.	23. Cambridge.	4. Stafford.	24. Oxford.
5. Warwick.	24. Devon.	5. Warwick.	25. Northampton.
6. Surrey.	25. Essex.	6. Durham.	26. Buckingham.
III. FROM 80 TO 90.	26. Southampton.	III. FROM 150 TO 200.	27. Suffolk.
7. Kent.	27. Worcester.	7. Chester.	28. Devon.
8. Derby.	28. Buckingham.	8. Kent.	29. Cambridge.
9. Leicester.	29. Gloucester.	9. Worcester.	30. Norfolk.
10. Nottingham.	30. Shropshire.	10. Gloucester.	31. Dorset.
IV. FROM 70 TO 80.	31. Westmoreland.	11. Nottingham.	VI. UNDER 75 PER SQUARE KILO.
11. Norfolk.	32. Durham.	IV. FROM 100 TO 150.	32. Salop.
12. Berks.	33. Hertford.	12. York.	33. Wilts.
13. Northampton.	34. Dorset.	13. Derby.	34. Huntingdon.
14. York.	35. Huntingdon.	14. Monmouth.	35. Northumberland.
15. Chester.	VI. UNDER 50 PER MILLION.	15. Leicester.	36. North Wales.
16. Northumberland.	36. Stafford.	16. Bedford.	37. South Wales.
V. FROM 50 TO 70.	37. Wiltshire.	17. Southampton.	38. Lincoln.
17. Lancaster.	38. Monmouth.	18. Hertford.	39. Hereford.
	39. South Wales.	19. Somerset.	40. Rutland.
	40. Cornwall.		41. Cumberland.
	41. Bedford.		42. Westmoreland.
	42. North Wales.		
B.—FRANCE.			
I. ABOVE 300 PER MILLION.	12. Eure.	I. ABOVE 4,000 PER SQUARE KILO.	14. Ile-et-Vilaine.
1. Seine-et-Marne.	13. Loiret.	1. Seine.	15. Loire inférieure.
2. Oise.	14. Meuse.	II. FROM 100 TO 200.	16. Calvados.
3. Seine.	15. Var.	2. Nord.	17. Moselle.
4. Marne.	16. Meurthe.	3. Rhône.	IV. FROM 70 TO 80.
5. Seine-et-Oise.	17. Pas-de-Calais.	4. Seine-Inférieure.	18. Haute-Garonne.
II. FROM 201 TO 300.	18. Bouches-du-R.	5. (Alsace).	19. Aisne.
6. Aisne.	19. Vaucluse.	6. Pas-de-Calais.	20. Vaucluse.
7. Seine-Inférieure.	20. Charente-Inf.	7. Loire.	21. Maine-et-Loire.
8. Aube.	21. Loire-et-Cher.	8. Bouches-du-R.	22. Sarthe.
9. Eure-et-Loire.	22. Ardennes.	III. FROM 80 TO 100.	23. Morbihan.
10. Somme.	23. Rhône.	9. Finisterre.	24. Gard.
III. FROM 151 to 200.	IV. FROM 101 TO 150.	10. Manche.	25. Gironde.
11. Indre-et-Loire.	24. Côte-d'Or.	11. Seine-et-Oise.	26. Puy-de-Dôme.
	25. Drôme.	12. Côtes-du-Nord.	27. Mayenne.
	26. Calvados.	13. Somme.	28. Meurthe.
	27. Basses-Alpes.		V. FROM 60 TO 70.
	28. Charente.		29. Charente-Inf.
	29. Ain.		

the Separate Territorial Divisions of the Principal European States.

CLASSES AND NUMBER OF ORDER OF THE TERRITORIAL DIVISIONS

According to the average of suicides per million inhabitants		According to the density of population. Inhabitants per square kilometre	
30. Vosges.	VI. FROM 51 TO 75.	30. Saône-et-Loire.	61. Allier.
31. Sarthe.	61. Landes.	31. Isère.	62. Arriège.
32. Haute-Marne.	62. Corrèze.	32. Ardèche.	63. Var.
33. Yonne.	63. Manche.	33. Hérault.	64. Nièvre.
34. Jura.	64. Lot-et-Garonne.	34. Vosges.	65. Yonne.
35. Doubs.	65. Loire.*	35. Oise.	66. Drôme.
36. Finisterre.	66. Lot.	36. Orne.	
37. Alpes-Maritimes.*	67. Puy-de-Dôme.	37. Eure.	VII. FROM 40 TO 50.
38. Nord.	68. Tarn.	38. Ain.	67. Eure-et-Loire.
39. Haute-Saône.	69. Ile-et-Vilaine.	39. Charente.	68. Creuse.
40. Gard.	70. Morbihan.	40. Haute-Savoie.	69. Meuse.
41. Moselle.*	71. Ardèche.	41. Haute-Loire.	70. Gers.
42. Maine-et-Loire.	72. Allier.	42. Ardennes.	71. Marne.
43. Isère.	73. Aude.	43. Tarn.	72. Savoie.
44. Dordogne.	74. Hérault.	44. Seine-et-Marne.	73. Cher.
45. Vienne.	75. Cantal.*	45. Tarn-et-Garonne.	74. Vienne.
46. Alsace.*	76. Haute-Savoie.*	46. Lot-et-Garonne.	75. Pyrénées-Orient.
47. Saône-et-Loire.	77. Hautes-Alpes.	47. Vendée.	76. Aveyron.
48. Cher.	78. Côtes-du-Nord.	48. Jura.	77. Aude.
	79. Creuse.		78. Côte-d'Or.
V. FROM 76 TO 100.	80. Lozère.	VI. FROM 50 TO 60.	79. Aube.
49. Mayenne.	VII. FROM 26 TO 50.	49. Haute-Saône.	80. Loir-et-Cher.
50. Deux-Sèvres.	81. Haute-Garonne.	50. Haute-Vienne.	81. Haute-Marne.
51. Nièvre.	82. Tarn-et-Garonne.	51. Basses-Pyrénées.	82. Cantal.
52. Gironde.	83. Gers.	52. Doubs.	83. Indre.
53. Haute-Vienne.	84. Hautes-Pyrénées.	53. Deux-Sèvres.	
54. Indre.	85. Arriège.	54. Lot.	VIII. FROM 33 UPWARDS.
55. Loire-Inf.	86. Haute-Loire.*	55. Dordogne.	84. Landes.
56. Vendée.		56. Indre-et-Loire.	85. Corsica.
57. Orne.	VIII. UNDER 25 PER MILLION.	57. Hautes-Pyrénées.	86. Lozère.
58. Basses-Pyrénées.		58. Corrèze	87. Hautes-Alpes.
59. Pyrénées-Orient.	87. Corsica.*	59. Loiret.	88. Basses-Alpes.
60. Savoie.	88. Aveyron.	60. Alpes-Maritimes.	

C.—PRUSSIA-BADEN-HANOVER.

I. ABOVE 150 PER MILLION.	14. Stettin.	I. ABOVE 150 PER SQUARE KILO.	11. Friburg.
1. Liegnitz.	15. Königsberg.	1. Düsseldorf.	12. Minden.
2. Magdeburg.	16. Hanover.	2. Köln.	13. Coblentz.
3. Merseburg.	17. Costanza.		14. Merseburg.
4. Schleswig.	18. Hessen-Cassel.	II. FROM 100 TO 150.	15. Potsdam-Berlin.
5. Potsdam-Berlin.	19. Friburg	3. Carlsruhe.	16. Trèves.
6. Breslau.	20. Mannheim.	4. Aachen.	17. Hildesheim.
7. Stralsund.	21. Dantzig.	5. Wiesbaden.	18. Hessen-Cassel.
8. Erfurt.	22. Wiesbaden.	6. Mannheim.	
9. Lüneburg.	23. Köslin.	7. Erfurt.	IV. FROM 50 TO 75.
10. Frankfort.		8. Arnsberg.	19. Magdeburg.
11. Hildesheim.	III. FROM 75 TO 100.	9. Breslau.	20. Liegnitz.
12. Lauenburg.			21. Königsberg.
II. FROM 101 TO 150.	24. Arnsberg.	III. FROM 75 TO 100.	22. Hanover.
13. Stade.	25. Gumbinnen.	10. Oppeln.	23. Cassel.
	26. Hohenzollern.		24. Dantzig.
	27. Aurich.		

TABLE XXI.—*Relation of Suicide to the Density of Population in the Separate Territorial Divisions of the Principal European States—(cont.)*

CLASSES AND NUMBER OF ORDER OF THE TERRITORIAL DIVISIONS			
According to the average of suicides per million inhabitants		According to the density of population. Inhabitants per square kilometre	
28. Posen.	35. Oppeln.	25. Aurich.	V. UNDER 50 PER SQUARE KILO.
29. Düsseldorf.	36. Köln.	26. Münster.	33. Bromberg.
IV. FROM 50 TO 75	V. UNDER 50 PER MILLION.	27. Hohenzollern.	34. Gumbinnen.
30. Carlsruhe.	37. Minden.	28. Posen.	35. Stade.
31. Marienwerder.	38. Münster.	29. Stettin.	36. Marienwerder.
32. Osnabrück.	39. Trèves.	30. Schleswig-H.	37. Lauenburg.
33. Bromberg.	40. Aachen.	31. Stralsund.	38. Osnabrück.
34. Coblentz.		32. Frankfurt-a.-O.	39. Köslin.
			40. Lüneburg.
	D.—ITALY.		
I. ABOVE 60 PER MILLION.	V. FROM 21 TO 30.	I. FROM 351 TO 337.	34. Ascoli.
1. Bologna.	34. Cuneo.	1. Naples.	35. Catania.
2. Leghorn.	35. Porto Maurizio.	2. Leghorn.	36. Novara.
3. Forli.	36. Cremona	3. Milan.	37. Messina.
4. Modena.	37. Naples.	II. FROM 150 TO 200.	38. Massa-Carrara.
II. FROM 51 TO 60.	38. Catania.	4. Lucca.	39. Turin.
5. Siena.	39. Como.	5. Padua.	40. Piacenza.
6. Ravenna.	40. Chieti.	6. Cremona.	41. Reggio Calabria.
7. Venice.	41. Novara.	7. Como.	42. Cuneo.
8. Milan.	42. Trapani.	8. Genoa.	43. Macerata.
9. Parma.	43. Macerata.	9. Venice.	44. Pisa.
10. Genoa.	44. Grosseto.	III. FROM 126 TO 150.	45. Ferrara.
III. FROM 41 TO 50.	45. Palermo.	10. Treviso.	46. Parma.
11. Mantua.	VI. FROM 15 TO 20.	11. Vicenza.	VI. FROM 61 TO 80.
12. Florence.	46. Bergamo.	12. Ancona.	47. Siracusa.
13. Reggio Emilia.	47. Aquila.	13. Alessandria.	48. Campobasso.
14. Ferrara.	48. Benevento.	14. Pavia.	49. Trapani.
15. Padua.	49. Lucca.	15. Verona.	50. Girgenti.
16. Alessandria.	50. Foggia.	16. Bergamo.	51. Udine.
17. Ancona.	51. Sassari.	17. Florence.	52. Teramo.
18. Vicenza.	52. Siracusa.	18. Benevento.	53. Pesaro.
19. Turin.	53. Ascoli.	19. Forli.	54. Arezzo.
20. Rome.	54. Lecce.	IV. FROM 101 TO 125.	55. Rome.
IV. FROM 31 TO 40.	55. Bari.	20. Bologna.	56. Catanzaro.
21. Pesaro.	56. Avellino.	21. Palermo.	57. Caltanisetta.
22. Pavia.	57. Massa Carrara.	22. Rovigo.	VII. FROM 40 TO 60.
23. Rovigo.	VII. FROM 10 TO 15.	23. Chieti.	58. Cosenza.
24. Brescia.	58. Potenza.	24. Caserta.	59. Lecce.
25. Treviso.	59. Salerno.	25. Mantua.	60. Perugia.
26. Pisa.	60. Girgenti.	26. Ravenna.	61. Siena.
27. Verona.	61. Campobasso.	27. Modena.	62. Belluno.
28. Belluno.	62. Caltanisetta.	28. Brescia.	63. Aquila.
29. Piacenza.	63. Messina.	29. Reggio Emilia.	64. Potenza.
30. Udine.	64. Cagliari.	30. Porto Maurizio.	65. Foggia.
31. Sondrio.	VIII. UNDER 10.	31. Avellino.	VIII. FROM 34 TO 23.
32. Arezzo.	65. Cosenza.	32. Bari.	66. Sondrio.
33. Perugia.	66. Catanzaro.	V. FROM 80 TO 100.	67. Cagliari.
	67. Caserta.	33. Salerno.	68. Grosseto.
	68. Reggio Calabria.		69. Sassari.
	69. Teramo.		

the island of Corsica; and in the Italian provinces of Leghorn, Cagliari, &c. But in the greater number the places occupied in the two series do not correspond. It is, however, noteworthy that the more restricted the territory of the State taken for examination, the less removed the relation appears to be. We have already spoken of the causes which presumably annul the influence of density of population; but one of the most powerful is certainly that of which we are now about to begin the study.

§ 8. *Urban and Rural Life.*

If it is true that cities represent the active and progressive element, the instinct and daring pursuit of novelties, the ardour of scientific investigation by which the intellect is expanded; on the contrary, country people, who persevering, peaceful, patient, continually struggling with the brute forces of nature, are above all conservative and less subject to agitations, it is also true that the contact and friction of city life will alone explain the preponderance of suicides amongst denizens of cities over those amongst country people. *The proportion of suicides in all Europe is greater amongst the condensed population of urban centres than amongst the more scattered inhabitants of the country.* Nevertheless, this influence of cities is not uniform and exclusive, nor, as might be supposed, is it ever according to ratio with the mass of inhabitants. Town life is a powerful modifier of the human will, but it does not neutralise all the other social and individual factors.

Statistics succeed with difficulty in determining where the urban portion of a population ends and the rural part begins, and the categories of the inhabited centres differ also too much in the official publications of the European

States to be available. In the meantime the influence of the concentration of population on suicide may be studied by having recourse to some interesting comparative data, both among different States and among separate regions of the same State.

Examining the general conditions of the condensation of the population in the principal States of Europe we do not find that the greater frequency of suicide harmonises with the preponderance which the urban centres exhibit. Below is the return of the percentage of the *rural* population (1867–71) and of the *urban* (that is to say, inhabitants in centres of more than 2,000) of several countries arranged in a descending scale according to the average of suicides calculated at the last period (see Table IV.):—

Countries	Average of suicides per mil.	Population per cent.		Countries	Average of suicides per mil.	Population per cent.	
		Urban	Rural			Urban	Rural
1. Hamburg	301	82·5	17·5	13. Hanover	140	25·8	74·2
2. Kingdom of Saxony	311	47·2	52·8	14. Prussia	133	35·4	64·6
3. Saxe-Altenburg	303	33·2	66·8	15. Austria	122	30·3	69·7
4. Saxe-Meiningen	264	24·3	75·7	16. Bavaria	91	23·3	76·7
5. Denmark	258	19·5	80·5	17. Sweden	81	11·3	88·7
6. Schleswig-Holstein	240	29·7	70·3	18. Norway	75	14·8	85·2
7. Oldenburg	198	17·7	82·3	19. Belgium	68	64·0	36·0
8. Switzerland	196	35·8	64·2	20. England	66	45·1	54·9
9. Mecklenburg	167	33·0	67·0	21. Italy	37	42·5	57·5
10. Würtemberg	162	29·0	71·0	22. Netherlands	35	80·2	20·0
11. Baden	157	29·9	70·1	23. Russia	29	11·1	88·4
12. France	150	41·9	58·1	24. Spain	17	42·6	57·9

States and regions with great concentration of inhabitants, as in England, Spain, and Sicily, do not give more suicides than other countries having fewer urban centres, such as Denmark, Hanover, Lombardy, and Tuscany. But seeking for the average frequency in the two categories of inhabitants for each individual country, we shall see clearly that those of the cities take the lead, that being the result whichever of the European statistics are

examined. On the following page are the absolute and relative numbers of the principal countries for different periods. The urban population is that massed in centres of at least 2,000 inhabitants. For Italy the statistics of 1877 alone contain the necessary indications, and for the other countries some of these figures are Wagner's (Table XXII. on following page). A more marked tendency towards suicide is the distinctive character of the urban populations in all these countries. The greatest superiority of the towns over the country exists in Sweden, and after that comes Italy; the minimum in Denmark, where during the last years suicide has preponderated, though only in a slight degree, among the rural districts. This increase of suicides among the country people is not peculiar to Denmark alone; in the whole of Europe there is a tendency to establish an equilibrium between the psychical characteristics of the country and the towns. If the returns on the percentage of one State but of different periods are compared, it may be observed that everywhere the difference between centres, or cities and provinces, continually diminishes, which may be caused by the increasing contact between the urban and rural population, and also from the spread of education amongst them.

The influence of city life is not the only cause of the differences between country and country, nor do the psychical characteristics of the inhabitants depend upon the extension of a centre. It must therefore be admitted that urban life only exaggerates the general inclinations of a population, and statistics confirm this in all civilized States. With regard to Italy this investigation can be made only for the year 1877, but the results are in full agreement with the fact just mentioned. In the following table (p. 173) we have calculated the averages per million of the principal communal chief towns of provinces with

TABLE XXII.—*Influence of Urban and Rural Life on the Tendency to Suicide.*

COUNTRIES AND PERIODS[1]		Actual annual number of suicides in			Proportion per million inhabitants of		Per 100 suicides in the country as well as in cities
		Cities	Country	Total	Cities	Country	
STATES.							
Sweden	1851–55	54·2	199·2	253·4	149	62	240
„	1856–60	—	—	211·0	146	45	326
„	1861–65	—	—	301·0	193	60	321
„	1866–70	—	—	354·0	216	66	327
„	1871–75	—	—	347·0	167	67	249
Norway	1856–60	32·0	113·0	145·0	157	87	180
„	1861–65	26·6	114·0	140·6	100	79	127
„	1866–69	24·5	103·7	128·2	92	72	127
„	1870–73	34·2	96·8	131·0	103	65	158
Denmark	1845–56	105·1	264·1	369·2	342	232	147
„	1864–68	125·6	328·8	454·4	340	265	127
„	1869–73	122·8	348·4	471·2	283	257	110
„	1874–76	110·6	335·4	446·0	236	238	(99)
Prussia	1849—1856–58	861·0	1156·0	2017·0	173	94	184
„	1869–72 (Kolb)	1369·7	1611·0	2880·7	162	97	167
Saxony	1859–63	—	—	579·6	317·2	219·5	144
Bavaria	1876	141	381	522	118·2	104·0	(114)
Würtemberg	1846–60	68·4	106·7	175·1	158	84	188
„	1873–75	—	—	307·0	263·3	163·3	161
Belgium	1851–55—1858–60	72·5	113·8	186·3	61·4	34·0	181
Hanover	1856–58	51·3	198·3	249·6	198	120	165
France	1866–69	2340·2	2770·0	(5110·2)	202	104	194
„	1870–72	1775·0	2804·3	4579·3	161	110	146
„	1873–76	2507·0	3026·0	5533·0	217	118	184
Italy	1877	571	568	1139	66·1	29·6	223

[1] In the returns for France for 1866–69, 250 individuals are wanting whose domicile was not known; for 1870–72, 184 others, and for 1873–76, 285 more. The averages of Bavaria are calculated on the population of 1867.

above 50,000 inhabitants and of those below that number, placing beside them not only the relative percentage with the average of suicides of the whole province, but also the proportion of inhabitants really massed together. (*Census, Dec.* 31, 1871, *Population*, &c. 1874, vol. i. p. 41.)

In all these communal chief towns (excepting Palermo, Lucca, and Arezzo) the frequency of suicides is much greater than in the whole province. The greatest difference is at Grosseto, which, together with Sassari, give us the least density of population; Lecce, Cosenza, Siena, and Bergamo follow. Of the communal chief towns with

Italian Communes	Population per thousand (1876)	Density per cent. (1871)	Suicides per million (1877)	Relation to the average of the Provinces = 100
A.—Chief towns with more than 50,000 inhab.				
Naples	449	97·5	46·7	175
Milan	261	93·5	199·2	357
Rome	235	90·8	114·7	275
Palermo	228	99·0	17·5	86
Turin	214	93·8	154·2	368
Florence	170	99·6	188·6	379
Genoa	163	100·0	153·6	302
Venice	126	99·4	166·3	292
Messina	118	93·4	33·8	270
Bologna	113	81·2	168·3	188
Leghorn	98	91·3	122·7	142
Catania	80	98·9	56·2	212
Ferrara	75	65·9	66·2	145
Lucca	68	46·8	14·6	82
Padua	66	78·7	166·1	370
Verona	66	93·1	121·0	363
Ravenna	60	53·4	132·5	231
Alessandria	58	62·8	154·0	358
Modena	56	60·2	71·1	103
Bari	54	97·8	55·4	346
Reggio Emilia	51	56·8	137·5	286
Pisa	50	74·5	119·5	356
B.—Chief towns with less than 20,000 inhab.[1]				
Grosseto	5½	61·0	544·1	2,623
Sondrio	6½	97·2	148·0	474
Cosenza	15	84·0	65·9	672
Aquila	17	89·7	58·7	309
Pesaro	19	67·0	50·4	124
C.—Other chief towns with from 20–50,000 inhab.				
Perugia	49	45·6	162·6	529
Ancona	46	76·9	107·6	250
Parma	42	98·7	284·5	523
Forli	39	39·8	127·4	164
Arezzo	39	35·3	23·2	74
Vicenza	37	86·9	107·3	255
Bergamo	36	85·6	110·9	577
Trapani	36	83·4	55·4	251
Brescia	35	100·0	84·5	216
Novara	30	78·2	65·2	276
Lecce	24	87·5	290·7	1,765
Siena	21	100·0	365·5	620
Mantua	25	100·0	157·7	314
Caserta	30	98·6	32·9	450
Catanzaro	25	86·2	40·0	526
Macerata	20½	56·4	48·0	230

[1] Many chief towns with under 20,000 inhabitants had no suicides in 1877; for example, Porto Maurizio, Rovigo, Campobasso, Potenza, and Belluno.

over 50,000 inhabitants Modena gives the least difference (certainly owing to pellagra of the country places); Florence gives, on the other hand, the greatest. It is, however, evident that the wide extension of a communal chief town does not cause so much difference between its average and that of the province as might be thought. The great communes of Italy give, in this respect, generally less percentage differences than the small ones, which may be explained by the irradiation of their influence in a wider circle of territory; and hence arises a greater psychological affinity of their rural populations with those of the cities.

In France, the departments with the most populous

cities offer almost always a greater intensity of suicides than those which have no important centres. Below is the comparison for the period 1872–76, based on the census for 1872, observing that the urban population of the fourth column is the percentage on the whole census in 1866.

Nevertheless, many departments of the second series (B) give larger averages than some of the first (A), but it must be noted that they are in the north-east of France, where we have already studied the influence of race, of the irradiation of Paris, and of industrial developement. Thus the department of the Nord which, besides Lille and Roubaix, includes other great industrial centres, such as Dunkirk, Tourcoin, Douay, and Valenciennes, has fewer suicides than other departments which are agricultural, and with fewer cities. Thus also the Loiret possesses in Saint-Etienne a thickly populated industrial centre, but has no other centre of agglomeration (the chief town, Mont Brisson, has only 6,400 inhabitants) and gives a low average.

For the rest, in order to calculate the difference between the urban and rural population in all these departments, statistical data of the suicides which have taken place fail to discriminate between town and country. Petit, dividing the departments into three groups, according to the density of inhabitants, found in 1850 that in 29 departments, with 22 per cent. urban population, 1 suicide happened out of 9,918 inhabitants; in other 29, with 19 per cent., there was 1 in 18,984; and in the last 28, with 14 per cent., 1 in 36,721. Cazauvieilh, on the other hand, maintains, but wrongly, that suicide was as frequent in the country as in the city, attributing the growing civilization of rural populations as a reason for it. Assuredly the increase of suicide is general, and this is

Departments	Towns	Population of cities in the thousand	Urban population per cent. in the department	Suicides per million
A.—Departments with large towns.				
Seine	Paris	1,852	98·2	400
Rhône	Lyons	324	62·5	167
Bouches-du-Rhône	Marseilles	313	81·2	203
Gironde	Bordeaux	194	39·0	122
Nord	Lille	158	53·7	110
	Roubaix	76		
Haute-Garonne	Toulouse	125	34·8	66
Loire-Inf.	Nantes	118	28·7	76
Loire	S. Etienne	111	39·5	71
Seine-Inf.	Rouen	102	43·8	240
	Le Havre	87		
Marne	Rheims	72	31·9	381
Var	Toulon	69	58·4	221
Finisterre	Brest	66	21·1	108
Somme	Amiens	64	25·2	219
Gard	Nimes	62	45·2	115
Seine-et-Oise	Versailles	62	30·6	389
Maine-et-Loire	Angers	58	22·1	135
Hérault	Montpellier	58	56·8	78
Haute-Vienne	Limoges	55	26·2	101
Meurthe	Nancy	53	25·4	155
Alpes-Marit.	Nice	52	50·8	133
Sarthe	Le Mans	47	19·6	156
Doubs	Besançon	49	22·7	114
Loiret	Orléans	49	27·0	207
Indre-et-Loire	Tours	43	21·2	213
B.—Departments without important centres.				
Pyrénées-Orien.	Perpignan	25	36·9	76
Manche	S. Lo	8	21·0	84
Basses-Pyrénées	Pau	25	18·8	64
Aude	Carcassonne	22	25·2	75
Corsica	Bastia	21	22·1	28
Deux-Sèvres	Niort	21	12·1	111
Nièvre	Nevers	20	20·1	94
Dordogne	Périgueux	20	10·8	115
Drôme	Valence	20	25·7	162
Orne	Alençon	16	17·1	97
Saône-et-Loire	Châlons	20	18·7	145
Arriège	Foix	4	14·7	31
Cantal	Aurillac	10	10·7	61
Lozère	Mende	6	12·2	55
Gers	Auch	12	17·5	62
Corrèze	Tulle	12	12·7	69
Vosges	Epinal	10	16·2	126
Landes	Marsan	5½	9·1	83
Ain	Bourg	10	12·6	128
Vendée	Bourbon	3	10·6	66
Creuse	Guéret	4	8·2	69
Haute-Loire	Le Puy	14	17·3	46
Aveyron	Rhodez	8	17·4	40
Tarn	Alby	15	24·7	55
Allier	Moulins	16	22·7	84

likewise shared by the populations scattered in the country whose distance from towns decreases year by year; nevertheless, under the returns of suicide the citizen population always labours under disadvantage.

Northern Sweden furnishes a like result. Whilst the rural län of Stockholm gave in 1851–60 and 1861–73 the averages of 131 and 135, the city of Stockholm had them on the contrary as high as 210 and 340. If, then, the counties of England and Wales which have great centres in their territories are confronted with those which do not possess such, it will be perceived that the former are distinguished in the aggregate by a greater intensity of suicide.[1]

It should be noticed that many counties possess more than one important centre of population; thus Hampshire has also Southampton (55,000 inhabitants); Kent, Maidstone (26,000); Staffordshire, Wolverhampton (68,000); Warwickshire, Coventry (38,000 inhabitants); West Riding has Huddersfield (70,000) and Halifax (66,000); East Riding has York (40,000 inhabitants), and Lancashire, rich in great industrial centres, possesses also Oldham (89,000), Preston (86,000), Bolton (83,000), and Blackburn (76,000). Other counties which give high averages are Northamptonshire, with a town of 41,000 inhabitants (average 72·5); Norfolk, with the city of Norwich, 80,000, and Yarmouth 42,000 (average 77); and Derbyshire, with a centre of 50,000 (average 84·3).[2]

[1] The density of the population is given with the number of acres for every inhabitant (*Reg. Gen.*) In the first two counties, and in Kent, the area occupied by the metropolis is excluded from the computation of the density by which their returns would be much increased. The density of London–Middlesex is 0·01, of London–Surrey 0·03, and of London–Kent 0·10 acres per individual.

[2] The average of little Rutland is truly exceptional, for it is the highest of all, notwithstanding that it has a chief town of hardly 3,000

Counties and their density of population 1861–70		Towns	Population of towns in the thousand	Suicides per million 1872–76
—Counties with towns of not less than 100,000 inhabitants.				
Middlesex	0·79	London	2,286	98·9
Surrey	1·47	London	742	90·3
Lancashire	0·49	Liverpool	521	69·2
		Manchester	496	
Warwick	1·02	Birmingham	372	92·3
West Riding	1·05	Leeds	292	71·4
		Sheffield	275	
		Bradford	174	
Kent	1·67	London	226	87·4
		Rochester, Chatham	64	
Gloucester	1·54	Bristol	200	59·4
Northumberland	3·54	Newcastle	140	70·3
East Riding	2·40	Hull	137	86·1
Hampshire	2·11	Portsmouth	124	62·3
Devon	2·75	Plymouth	135	62·6
Stafford	9·91	Stoke-upon-Trent	131	49·1
Leicester	2·06	Leicester	114	83·2
Durham	1·22	Sunderland	108	53·6
Sussex	2·41	Brighton	100	111·6
Nottingham	1·77	Nottingham	94	77·0
B.—Counties with towns of under 30,000 inhabitants.				
Essex	2·38	Colchester	24	62·6
Lincoln	4·16	Lincoln	27	68·6
Shropshire	3·50	Shrewsbury	23	59·1
North Riding	5·54	Middlesborough	19	54·2
Hereford	3·94	Hereford	16	66·8
Bedford	2·09	Luton	15	38·2
Westmoreland	7·98	Kendal	12	58·3
Wiltshire	3·23	Salisbury	12	47·4
Dorset	3·29	Weymouth	11	50·7
Cornwall	2·45	Truro	11	38·5
North Wales	4·60	Carnarvon	9	36·7
Buckingham	2·67	Aylesbury	6	61·9
Hertford	2·30	St. Albans	8	53·4
Monmouth	2·08	Monmouth	5	46·4
Huntingdon	3·49	Huntingdon	4	50·5
Rutland	4·58	Oakham	3	(153·9)
Average of the Counties *A*				76·5
" " *B*				52·9
" " (*B*)				59·1

But coming to Germany, in Würtemberg the circles of the Neckar (with the towns of Stuttgart, Heilbronn, and Esslingen, making an aggregate of 148,000 inhabitants) and of the Danube (with Ulm and Göppingen having 40,000 inhabitants) offer higher averages than the two circles without important centres. In Bavaria in 1871–76 the following were the averages in the principal towns :—

Districts	Towns	Population	Number of suicides	Per million	Per 100 in the districts and towns
Upper Bavaria . .	Munich	181,251	27·5	151·7	185
„ Franconia . .	Bayreuth . . .	18,000	6·5	361·1	252
„ „ . .	Bamberg . . .	26,353	5·0	189·7	132
„ „ . .	Hof	16,000	4·0	250·0	175
Central Franconia . .	Anspach . . .	13,000	2·83	240·0	168
„ „ . .	Nürnberg . . .	86,973	22·83	251·0	176
„ „ . .	Fürth	25,969	7·16	275·0	193
Lower Franconia . .	Würzburg . . .	42,500	5·6	131·7	172
Swabia	Augsburg . . .	54,247	9·0	165·8	205

It is in Prussia, however, that statistics allow of our measuring the influence of urban life, because the data of the towns are there distinct from those of the country. We have calculated the following averages on the results of the census for 1871, and on the actual number of suicides which took place during the three years 1872–74 in towns with over 20,000 inhabitants, and in the other parts of each province. In Brandenburg alone, notwithstanding that it contains Berlin, the average of the province exceeds that of the towns, but presently, when speaking of an almost similar fact, which is verified by the departments adjacent to Paris, we shall see the reason.

inhabitants. That accrues from the scarcity of population taken as a basis of the computation (barely 23,385 inhabitants) and from the exceptional actual numbers of 1876, when eight suicides took place, almost the half for the whole period of 1872–76. Let us note that Rutland offered Wagner the smallest average for 1856–60 (11 per million).

Provinces	Population 1871		Annual number of suicides		Per million inhabitants		Per 100 suicides in the provinces and in the towns
	Towns with over 20,000 inhab.	The rest of the province	In the towns	In the rest of the province	In the towns	In the rest of the province	
Prussia . .	252,482	2,885,063	49·0	255·2	194	88·4	219
Brandenburg .	960,623	1,902,606	186·5	392·2	194·1	206·1	91
Pomerania . .	103,011	1,328,622	22·5	147·7	218·4	111·1	196
Posen . . .	81,114	1,502,429	9·2	93·7	113·4	62·2	182
Silesia . . .	273,331	3,433,836	64·7	503·0	236·7	146·4	161
Saxony . . .	257,434	1,845,740	65·0	400·0	252·4	216·7	117
Schleswig-Holstein	127,187	868,686	31·2	188·7	245·3	217·2	113
Hanover . .	148,352	1,815,266	31·7	263·5	213·6	145·1	146
Westphalia . .	112,267	1,662,908	13·0	116·7	115·7	70·1	165
Hessen-Nassau .	93,144	1,307,226	49·2	163·0	528·2	124·6	424
Rheinland . .	685,962	2,893,385	63·5	168·5	92·5	58·2	159

Also here it is clear that the intensity of suicide is not in direct relation either with the number or extension of the centres, and as Naples in Italy has fewer suicides than Catania, so in Prussia Berlin offers fewer than Wiesbaden, Osnabrück, and Hildesheim. This proves that psychical human inclinations are modified according to many causal movements, of which none by itself is efficacious, although all contribute to produce or at least to assist the final developement.

The most important Prussian cities, that is, with more than 20,000 inhabitants, are forty-eight in number according to the statistics. On data for the three years 1872–74 we wished to investigate the relative intensity of suicide in the most important of these, in order to confront them with the intensity of the district (*Regierungsbezirk*) and with that of their communal territory (*Kreise* or circle). Here follow the averages obtained, and it must be noted that the circle of some towns does not extend into the country.

Only at Breslau, Cassel, and Düsseldorf, had the circle (*Landkreise* or *Kreisestadt*) more suicides than the cities; these, however, were higher than the whole district,

Districts	Towns	Inhabitants of the towns 1871	Annual number of suicides		Suicides per million		Per 100 suicides of the districts as well as in the towns
			Towns	Circle (country)	Towns	Circle (country)	
Königsberg	Königsberg	112·092	29·33	10·66	261·6	221·0	171
Dantzig	Dantzig	88·975	13·33	4·0	149·8	52·1	157
Haupt Res.	Berlin	826·347	158·0	—	191·2	—	—
Potsdam	Potsdam	43·834	10·3	—	235·0	—	90
Frankfurt	Frankfurt	43·214	12·33	—	287·8	—	150
Posen	Posen	56·374	6·0	1·33	106·4	23·4	145
Bromberg	Bromberg	27·740	2·66	7·33	95·8	113·5	148
Breslau	Breslau	207·397	45·33	19·66	217·9	249·0	114
Liegnitz	Liegnitz	27·480	9·0	12·33	326·7	269·4	129
,,	Görlitz	42·200	13·6	9·3	323·6	200·5	128
Magdeburg	Magdeburg	114·509	25·6	12·3	224·0	234·3	97
,,	Halberstadt	25·419	6·3	6·6	249·0	204·4	108
Merseburg	Halle	52·620	12·3	—	234·3	—	98
Erfurt	Erfurt	43·616	11·3	3·3	262·0	158·7	132
Schleswig	Kiel	31·764	9·3	5·6	293·7	161·2	128
,,	Altona	74·102	14·0	1·3	188·9	147·1	83
Hanover	Hanover	87·626	25·6	9·3	292·8	125·8	191
Hildesheim	Hildesheim	20·081	4·3	4·6	215·5	113·6	139
Osnabrück	Osnabrück	23·308	5·3	4·0	228·6	95·3	307
Arnsberg	Dortmund	44·420	5·6	11·3	127·6	122·2	147
Hessen-Nassau	Cassel	46·362	8·0	11·3	172·5	286·4	101
Nassau	Frankfurt	91·040	27·3	3·6	300·1	248·5	203
Coblentz	Coblentz	28·748	6·3	4·0	220·1	86·8	297
Düsseldorf	Krefeld	57·105	5·0	2·0	87·5	70·7	107
,,	Essen	51·513	5·6	6·3	109·8	75·7	135
,,	Düsseldorf	69·365	6·3	6·6	91·2	142·8	112
Köln	Köln	129·233	12·3	8·0	95·4	91·8	166
Trier	Trier	31·869	2·6	1·0	83·4	15·6	157
Aachen	Aachen	74·146	5·3	3·6	71·8	39·7	181

although only slightly so. The cities of Saxony and Brandenburg return the highest numbers of all, while those of Rhine Prussia, Westphalia, and Posen are the lowest. From this it may be inferred that in a given country the relative intensity of suicide offers the same characteristics whatever group of population is taken for examination; namely, *it is high in the country places where it is so in the towns; in the latter, on the contrary, it becomes lower in proportion to the general average.*

Although it is not always possible to verify its truth, it is nevertheless presumable that the great cities of Europe manifest in the varied frequency of voluntary deaths, the material and psychological conditions of their

inhabitants and the States to which they belong. Paris has, according to the statistical returns, a greater influence than other capitals. Thus in France, it is not the departments with the great cities of Lyon, Marseilles, Bordeaux, Lille or Toulouse, which return averages approaching those of the department of the Seine; but they are those situated around Paris which feel its powerful influence and participate in its life. Summing up the long investigations of Guerry, Lisle, and Legoyt, it may be said that the number of suicides augment regularly and in every direction in the French departments, according to their vicinity to the capital; although in a large circle around it there is no important centre with over 20,000 inhabitants, except Versailles (with 62,000), which may be called a large suburb of Paris. On the other hand, in some departments far from Paris the average remains low, although there are centres of agglomeration, as Clermont, Rennes, Nantes, Angers, Montpellier, and Limoges. The south-eastern departments around Marseilles form an exception, undoubtedly because of the influence which this great commercial centre (312,864 inhabitants) exercises all round on Provence, shedding around the moral reflex of its ardent life, as does Paris on the north of France. Paris is, indeed, the city in all the world where there are most victims to suicide; its average has at some periods reached a frightful proportion, but, as is natural, shows great oscillations, since all the economical and political revolutions, all reforms in habits, and the new channels of thought seem to make themselves first felt in the great French metropolis. In 1856–60 Legoyt found an average of 110 in all the 86 departments, but 646 (?) on the million in Paris, and Wagner assigns to the various capitals this relation with the whole State: Paris to France, as 100 :: 320–400.

Stockholm to Sweden :: 100 : 290, London to England :: 100 : 154, Berlin to Prussia :: 100 : 140, and Copenhagen to Denmark : : 100 : 142. More recently Decaisne read to the Academy of Sciences a memoir, in which he confessed that while at Vienna there is 1 suicide for 160 deaths, in London 1 in 175, at New York 1 in 712, in Paris there is 1 in 72. But this proportion seems to have been arrested in late times, or at any rate has not advanced in the capital, whilst it has continued to increase in the surrounding circle.

If the averages for the separate departments for 1872–76 are examined (see Table VI. p. 43) the Seine will be seen to have fewer suicides than the Oise, and the Seine-et-Marne and the Seine-et-Oise nearly the same. This fact is verified in the biennial 1868–69, when the Seine had 370·5, whilst the Oise and Seine-et-Marne had both 376·7. Going still farther back, the preponderance of Paris is very great; thus in 1849–50 the Seine gave 447·3, the Oise 235, Seine-et-Marne 241, Seine-et-Oise 256, and the Marne 272. This fact, which agrees with the diminution of suicide in Denmark and Norway, where also in times past it had an alarming intensity, with the stationariness of the English annual returns (see pp. 18–21), with the low average of Berlin compared with Brandenburg, and lastly, with the analogous decrease of London also, leads to the hope that the ascending movement of suicides having arrived at a given height there stops. But it would perhaps be placing too much faith in modern civilization to believe that it had already reached the necessary condition in which its benefits overbalance the moral and intellectual disturbances produced in the human mind by new ideas.[1] It remains a fact that the

[1] We must probably allow for other causes, more efficacious if less evident; for example, the suicide of citizens far from home and beyond

tide of suicide rises, like that of crime, in all countries, and especially in the provinces, whilst it remains almost stationary or decreases in the great and most civilized capitals of Europe.

London has always had more suicides than the rest of England, and, according to Buckle, in a uniform degree. In 1846–50 there were 107 per million; but in 1856–61 they went down to 100, to 88 in 1861–70, to 85·7 in 1872–76. The part of London bordering on Middlesex has more suicides than the two other parts bordering on Surrey and Kent; the three respective averages for 1872–76 are, 87·2, 85·1, and 72·7. Following are the averages of twelve years compared with those of the whole of England, and calculated upon the average population of 1861–70 according to the *Registrar-General* up to 1870, and upon the census of April 8, 1871, from the beginning of 1871.

Years	Suicides in London		So many per 100 suicides in the kingdom	Years	Suicides in London		So many per 100 suicides in the kingdom
	Number	Per million			Number	Per million	
1865	238	78·5	117	1871	293	89·9	136
1866	260	85·8	132	1872	270	82·9	125
1867	259	85·5	138	1873	277	85·1	131
1868	283	93·4	133	1874	257	78·9	118
1869	307	101·3	138	1875	297	91·3	136
1870	281	92·7	132	1876	295	90·7	123

In the returns for Berlin 1816 to 1872 the average of suicide is stationary also; nay, in the last three years, 1870–72, there is a sign of decrease, certainly caused by the Franco-Prussian war. Compared to the whole State the average of Berlin far surpasses it; in 1820, for 100 suicides in the State, 170 happened in the capital (119

the limits of the city, the special difficulty in distinguishing a suicide from an accidental death, as by drowning, the want of any tokens on the corpses of many unknown suicides, &c.

per million inhabitants); in 1830 the return was 100 : 213 (189 per million); in 1840, 100 : 172 (178 per million); in 1850, 100 : 205 (203 per million); in 1860, 100 : 160 (197 per million); in 1872–74 it fell to 101 : 143.

In Vienna suicide has for a long time been rare, compared with other great capitals of Europe; a large increase, and hence a grave difference from the rest of the state, has taken place only of late years; the average of the biennial 1871–72 (on the census of inhabitants in 1869) was 216 per million, but in 1876 it rose to 320 and in 1877 to 310, so that in those two years, for 100 suicides in Lower Austria 130 took place in the capital.

With regard to Petersburg there were exactly 206 suicides on an average per million, so that for every 100 suicides in Russia 650 took place in Petersburg! The variation which divides Copenhagen from the rest of Denmark is smaller, although still considerable. In 1856–60 the Danish kingdom gave 288 and the capital 447; bearing the proportion of 100 : 155; but after that at Copenhagen also the suicides somewhat decreased and the interval became smaller.

Years	Suicides at Copenhagen		Per 100 suicides of the whole of Denmark	Years	Suicides at Copenhagen		Per 100 suicides of the whole of Denmark
	Actual numbers	Per million			Actual numbers	Per million	
1863	76	489	169	1870	56	308	111
1864	56	360	125	1871	67	369	142
1865	65	418	145	1872	60	330	128
1866	82	489	176	1873	49	270	104
1867	66	393	142	1874	42	215	93
1868	83	493	178	1875	47	241	116
1869	63	375	136	1876	60	307	112

Stockholm offered also a grave preponderance over its country parts, and a very heavy one over the whole of Sweden; and it is still increasing, since in 1851–55 its

average was only 205, whilst in 1870 it was already 390. Stockholm possesses statistics of its suicides from 1751. The following are the averages of the twelve decennials, which show the progressive increase.

Actual numbers				Per million inhabitants		
1751–60	23	1811–20	109	Years	Stockholm	So many per 100 of the whole kingdom
1761–70	(22)	1821–30	171			
1771–80	16	1831–40	158			
1781–90	46	1841–50	152			
1791–1800	46	1851–60	211			
1801–10	61	1861–70	469			
				1855	200	281
				1860	491	646
				1866	313	400
				1870	395	464

We possess very few data for the other European capitals. Stuttgart and the larger towns of Würtemberg (Ulm, Heilbronn, Tübingen, Esslingen, Halle, &c.) in 1846–60 gave 228 against the average of 100 throughout the kingdom. Dresden in 1873–76 had 1·10 suicides in 100 deaths, against 0·93 in the whole of Saxony. The capital of Belgium in the decennial of 1864–75 furnished the average of 38 annual suicides, that is 221 per million, while in the State there were scarcely 67. The average of Brussels in 1876–77 rose, however, to 271, and that of the whole kingdom only to 81. Darmstadt in 1875 gave the return of 210 suicides per million, and in the year immediately following it had an alarming rise to 480; the Grand Duchy of Hessen, on the other hand, gave 190. At Munich in Bavaria in 1850 there were 125, already considerably above the average of 73 of the kingdom; in the quinquennial 1871–75 a divergence was maintained, the figures being respectively 137 and 90; still this shows a diminution. The intensity of suicide is very high at Frankfurt-on-Main, even with respect to all the rest of Germany, and what is more, it gives sign of increase; in the last two years, 1876–77, it stood at 499, whilst in 1872–74 it remained at 300.

Leaving Germany we find at Prag in 1874–76 a mean average of 44 suicides, so that the proportion on its 190,000 inhabitants is 231 per million; Bohemia gives only 160. For the greater Italian towns we are unfortunately without actual figures; from a publication of the Statistical Office of Rome (*Relaz. sul movim. di St. civ.* &c., 1878), we gather only that the returns of deaths by suicide on the general mortality in 1876–77 was for some of the most important places as follows: Rome 2·7 per thousand; Turin 5·6; Genoa 5·0; Bologna 5·8; Ancona 4·5; Florence 6·7; Pisa 3·2; Leghorn 5·0; and Naples 1·4. It is to be noted that the returns for the whole kingdom were on an average of 1·14 in the quinquennial 1871-75.

As to non-European towns New York has a mortality through suicide much above that of the United States, if this is, as it seems, only 32 (Legoyt). In the separate years of the seven, 1871–77, the city gave these respective averages per million: 121, 149, 122, 181, 154, 142, 140.

Wherever, therefore, the information is gathered with method and in a uniform way, we see issuing from it a series wonderfully constant in laws and relations. The state of human society is vividly expressed by these collected figures, which alone would have no worth. Thus statistics present themselves to us, says Herschell, as the basis of social and political dynamics, and as the only solid ground on which the truth or falsity of historical or psychological theories can be proved.

CHAPTER V.

INFLUENCES ARISING OUT OF THE BIOLOGICAL AND SOCIAL CONDITIONS OF THE INDIVIDUAL.

SETTING out with the metaphysical idea of a boundless moral liberty, we should be inclined to maintain that nothing could be more irregular and inconstant than the personal conditions of suicides. Quetelet remarks that man has always believed himself to be beyond and above natural laws, but the philosophical dogma of spontaneity of acts is one of the usual forms under which and at all times human pride and sentimentalism have been concealed. The examination of facts shows that in the midst of the great human evolutions the individual can do nothing; individual will becomes absorbed by the general will, and this will is not free from laws, nor can it even exist without laws. Is there any phenomenon apparently more free than human civilization? Yet Buckle, Guizot, Draper, and Bagehot have discovered and measured out laws both for civilization and the developement of social connexions; and it is on the individuals, each one considered by himself and in his relations with others, that their irresistible, regular, and progressive action is exercised.

Those who refuse the application of figures to moral facts present the objection under another aspect. Statistics, they say, discover and measure moral actions, but

their averages represent only the addition of partial individual activities, each one of which follows its own free and independent evolution. Thus statistical laws will prove nothing more than we know; humanity moves within *a determined, fixed, insuperable orbit*, whilst each individual follows one quite voluntary, which he will be able to turn in a direction opposed to the preordained, though never beyond the limits of the universal orbit. This mode of comprehending individual freedom as relative or limited freedom, is not only a confession of weakness in the metaphysical idea, but an illogical sequence. If, mixing together some cyanide of potassium and sulphate of protoxide of iron, a chemist should maintain that there must be produced from it, through natural immovable laws, sulphate-cyanide ferro-potassia, but that every molecule of this may have a separate atomic form independent of these laws, he would reason as logically as those who, while admitting limits of all kinds on the aggregate of men, yet assign to each of these a personal freedom of action. It is certain that the individual is *physically* free to think and to act, but according to the organic conditions which are imposed upon him (sex, age, mental and physiological temperament), by education, social position, culture, the experience of the senses, personal interests, and the exercise of reason, and as he is predisposed by climate, season, atmospheric variations, race, and the society in which he lives. The special orbit in which we *must* run is determined for us by all these subjective and extrinsic influences; and as it is not in our power to modify our organic and psychical constitution, neither is it possible for us to assign to alleged voluntary actions a different orbit from that imposed upon us by nature. The apparent human freedom arises from the circumstance that each individual field of action is diverse and

distinct, as the most complicated whole of the personal conditions of every member of civilized society is variable, which is as much as to say that it is as variable as the human *personality*. Such a variety of causes begets, as a logical consequence, an infinite and corresponding variety in the effects, whence arises the fallacious appearance that these effects have the character of singularity and spontaneity.

We now proceed to practical proofs, testing our theory by a study of the individual influences bearing on suicide.

§ 1. *Sex.*

Sex is the chief of the human personal conditions, owing to its social importance and to the influence it exercises on the cerebral, nutritive, and sensitive action. The physiological and psychical differences between man and woman are shown most clearly in their different inclination towards suicide. It was evident from the first attempt at comparative statistics that suicide is much more frequent amongst men than amongst women. Esquirol, who nevertheless showed such contempt for the application of the numerical method to moral facts, was the first to represent this sexual difference by a numerical proportion, which, although based by him on barely 200 cases, all subsequent observations have confirmed. In every country the proportion *is* 1 *woman to* 3 *or* 4 *men*, as in crime it is also 1 to 4 or 5. It is true that in some statistical series a return sometimes larger, sometimes smaller is obtained, but the divergence is hardly of one, and at the most two units beyond these limitations.

The constancy of this sexual difference is made evident in the actual numbers and percentage in our Table XXIII., digested from the statistics of many countries and

TABLE XXIII.—*Influence of Sex on the Tendency to Suicide. The actual numbers and percentage of the two sexes.*

COUNTRIES AND PERIODS to which the figures refer		Actual number of suicides			Per 100 suicides		Against 1,000 suicides fem. and as many masc.
		Masc.	Fem.	Total	M.	F.	
Sweden	1831-40	1,509	372	1,881	80·2	19·8	4,055
"	1841-50	1,750	454	2,204	79·4	20·6	3,854
"	1851-55	1,015	252	1,267	80·1	19·9	4,027
"	1856-60	(801)	(253)	1,054	76·0	24·0	3,167
"	1861-69	(2,287)	(623)	2,910	78·6	21·4	3,673
"	1870-74	(1,045)	(316)	1,361	76·8	23·2	3,310
Norway	1856-60	549	176	725	76·7	24·3	3,115
"	1861-65	643	160	703	77·2	22·8	3,386
"	1866-73	800	247	1,047	76·4	23·6	3,237
Denmark	1845-56	3,324	1,106	4,430	75·0	25·0	3,000
"	1864-69	2,099	635	2,734	76·7	23·3	3,292
"	1870-76	2,485	748	3,233	76·9	23·1	3,329
Russia	1875	1,408	363	1,771	79·5	20·5	3,878
England-Wales	1858-60	(2,780)	(1,092)	(3,872)	71·8	28·2	2,546
" "	1861-67	4,905	1,791	6,696	73·3	26·7	2,745
" "	1868-71	4,559	1,586	6,145	74·2	25·8	2,876
" "	1872-76	5,924	2,071	7,995	74·1	25·9	2,861
Netherlands	1869-71-72	325	62	387	84·0	16·0	5,250
Belgium	1836-39	558	149	707	79·0	21·0	3,762
"	1840-49	1,955	473	2,428	80·6	19·4	4,149
"	1870-76	2,189	398	2,587	84·6	15·4	5,480
Prussia	1816-20	3,187	774	3,961	80·4	19·6	4,102
"	1821-30	8,719	1,890	10,109	82·2	17·8	4,618
"	1831-40	11,435	2,534	13,969	81·9	18·1	4,625
"	1841-50	13,545	3,119	16,394	81·1	18·9	4,238
"	1851-60	17,175	4,020	21,195	81·1	18·9	4,238
"	1861-70	22,484	5,333	27,817	80·8	19·2	4,208
"	1871-76	16,425	3,724	20,149	81·5	18·5	4,405
Bavaria	1857-58 1861-62	1,341	343	1,684	79·6	20·4	3,902
"	1866-70	1,775	436	2,211	80·3	19·7	4,076
"	1871-76	2,172	529	2,701	80·4	19·6	4,102
Kingdom of Saxony	1830-34	386	109	495	77·8	22·2	3,504
" "	1847-50	1,165	328	1,493	78·1	21·9	3,566
" "	1851-60	4,004	1,055	5,059	79·1	20·9	3,785
" "	1861-70	5,297	1,333	6,630	79·9	20·1	3,975
" "	1871-76	3,625	870	4,495	80·7	19·3	4,161
Würtemberg	1846-60	2,138	488	2,626	81·4	18·6	4,376
"	1872-75	988	190	1,178	83·9	16·1	5,211
Baden	1864-69	1,024	176	1,200	85·3	14·7	5,803
"	1870-74	939	179	1,118	84·0	16·0	5,250
Hessen-Darmstadt	1866-71	764	156	910	82·8	17·2	4,814
Switzerland	1876	474	66	540	87·8	12·2	7,197
France	1836-40	9,561	3,307	12,868	74·3	25·7	2,891
"	1841-45	11,078	3,669	14,747	75·1	24·9	3,056
"	1846-50	13,136	4,093	17,229	76·3	23·7	3,219
"	1851-55	13,596	4,601	18,197	74·8	25·2	2,968
"	1856-60	15,314	4,694	20,008	76·5	23·5	3,255
"	1866-70	20,037	4,911	24,948	80·3	19·7	4,076
"	1871-76	25,344	6,839	32,183	78·7	21·3	3,695
Austria	1851-54	2,178	475	2,653	82·1	17·9	4,586
"	1873-77	11,429	2,478	13,907	82·1	17·9	4,586
Hungary	1851-54	1,237	353	1,590	77·8	22·2	3,500
Italy	1864-66	1,537	375	1,912	80·4	19·6	4,102
"	1867-71	3,012	782	3,794	79·4	20·6	3,854
"	1872-77	4,770	1,195	5,965	80·0	20·0	4,000
Spain	1859	141	57	198	71·2	28·8	2,473
St. of Providence (United States)	1856-76	86	34	120	71·7	28·3	2,530

various periods. There does not appear to be any relation between the masculine preponderance and the other climatic and ethnological differences already considered. Still Oettingen maintains that there is a national specificness even for the diverse aptitude of the two sexes for suicide, and truly looking at the figures of the various periods in one country, we find much more analogy between them than with those of the other countries; thus in Sweden the proportion of women is higher than 20 per cent., whilst in Prussia it is lower. But, on the other hand, we find periods in which the number differs absolutely from what it is usually, as, for example, in 1870–76 that of Belgium, and in 1866–70 that of France. Such a variability is the more significant, inasmuch as the limits of the average are fixed between 28 and 12, and different countries under all aspects give the same numbers. There are, however, countries where a particular feminine tendency may be found. The proportion is in fact very high among Spanish women, who commit suicide more than any other Europeans. In 1860–65 in Spain one woman committed suicide against only 2·50 men; in 1862 the proportion was 40 women against 100 men; and generally it would never be less than 71 per cent. (*Alm. Stat.* 1868). Looking then at the Austrian States, so different in race, language, and customs, there would always be a high return for women among the Polish Russians (Galicia and Buckovina), less high among the Czech-Slavs (Bohemia, Moravia, and Silesia), and lower among the Slav-Italian (Carniola, Istria, and Dalmatia) and among the German (Austria, Salzburg, Styria, Carinthia, and Tyrol). Here are the returns for two recent periods (per cent. of women):—

Countries	1851–61	1862–72	1851–72
Polish Russians	22·0	24·9	23·9
Czech-Slavs	23·1	20·0	21·3
Slav-Italians	17·8	19·6	18·9
German	18·5	20·0	19·4

As to the strong tendency towards suicide of the Spanish women, it must be attributed to the force of their passions, which brings them nearer to the male sex, for certainly it is not the effect of the Southern climate, when we see that Italy, which is also insular, does not furnish so high a female proportion.

The regularity with which each set contributes every year to the aggregate number of suicides is worthy of note, because it is also to be observed in the smaller series, although in these, as is natural, oscillations are not wanting. But in the meantime here follow the returns of the percentage of deaths of the two sexes for the quinquennial 1872–76 for the divisions of England and Wales:

Table XXIV.—*Influence of Sex on Suicide. Regularity of this influence in England and Wales. Annual Returns per Hundred.*

Divisions	Males					Females				
	1872	1873	1874	1875	1876	1872	1873	1874	1875	1876
England	72·4	74·4	75·7	74·0	74·2	27·6	25·6	24·3	26·0	25·8
I. London	72·6	76·2	73·6	67·1	75·0	27·4	23·8	26·4	32·9	25·0
II. South-Eastern	71·6	78·8	82·8	79·8	79·3	28·4	21·2	17·2	20·2	26·7
III. South-Midland	72·9	77·4	78·2	77·4	73·8	27·1	22·6	21·8	22·6	26·2
IV. Eastern	70·9	80·0	80·0	77·8	78·9	29·1	20·0	20·0	22·2	21·1
V. South-Western	71·9	64·0	73·0	73·7	68·7	28·1	36·0	27·0	26·3	31·3
VI. West-Midland	69·8	70·4	72·7	71·1	78·2	30·2	29·6	27·3	28·9	21·8
VII. North-Midland	78·8	74·5	75·7	76·6	70·9	21·2	25·5	24·3	23·4	29·1
VIII. North-Western	73·4	74·7	77·4	74·0	70·0	26·6	25·3	22·6	26·0	30·0
IX. Yorkshire	67·9	73·6	72·0	74·8	72·5	32·1	26·4	28·0	25·2	27·5
X. Northern	77·3	72·4	71·9	75·3	73·2	22·7	27·6	28·1	24·7	26·9
XI. Wales and Monmouthshire	71·7	69·7	76·3	81·5	75·5	28·3	30·3	23·7	18·5	24·5

Here it is evident that a great difference in the annual numbers of the average of the quinquennial is only to be observed in the figures of the smaller divisions and particularly in XI. (Wales and Monmouthshire), which has the

least number of voluntary deaths. Generally the variations do not exceed 10 per cent., nay, even for the most part stand below 5 per cent., a difference of little consequence if we reflect on the smallness of the series taken for examination, which in two divisions only, that is I. London, and VIII. North-Western, exceed 200 suicides in the year.

There does not exist, to all appearance, any relation between the general intensity of suicide in a given population, and the tribute paid to it by the female sex. And while the examination of the figures relative to whole States (Table XXIII.) suffices to convince us of this, the observation of the difference between the two sexes in the divisions and provinces of other countries of Europe leads us to the same conclusion, since, although the relation between men and women oscillates between the ordinary limits already given, yet a decided specific interval between the two sexes does not appear in the figures of any one country. In fact, in England alone may it be noticed that the relative proportion of men to women is generally 300 : 100, whilst in Prussia it is higher, 350–400 : 100; but elsewhere (Italy, Bavaria, Norway, Denmark, and France), provinces in close proximity give proportional relations between the two sexes widely remote.

Provinces	Actual number		Male suicides per 1,000 F.
	M.	F.	
A.—England and Wales (1861–70).			
London	1,909	760	2,512
South-Eastern Counties	1,284	378	3396
South-Midland Counties	628	212	2,962
Eastern Counties	530	176	3,011
South-Western Counties	762	297	2,565
West-Midland Counties	1,083	357	3,033
North-Midland	742	295	2,515
North-Western	1,555	500	3,111
Yorkshire	970	403	2,406
Northern Counties	528	202	2,613
Monmouthshire	311	127	2,448
Wales			

Provinces	Actual number M.	Actual number F.	Male suicides per 1,000 F.
B.—Prussia (1868–74).			
Prussia	1,926	435	4,427
Brandenburg	3,259	852	3,826
Pomerania	1,030	254	4,015
Posen	623	157	3,968
Silesia	3,318	794	4,178
Saxon Prussia	2,642	710	3,721
Schleswig-Holstein	1,239	353	3,507
Hanover	1,641	462	3,551
Westphalia	718	149	4,818
Hessen-Nassau	1,252	300	4,173
Rhine Prussia	1,395	253	**5,513**
Hohenzollern	42	13	3,233
C.—Denmark (1865–74).			
Copenhagen	452	121	3,735
Zealand	1,074	316	3,398
Bornholm	61	14	**4,357**
Laaland-Falster	218	82	2,658
Funen	342	117	2,923
Jutland	1,438	421	3,415
D.—Bavaria (1871–76).			
Upper Bavaria	381	72	**5,291**
Lower Bavaria	100	19	5,263
Palatinate	355	83	4,277
Upper Palatinate	100	30	3,333
Upper Franconia	358	92	3,891
Middle „	403	121	3,330
Lower „	214	60	3,566
Suabia	262	51	5,137
E.—Norway (1856–65).			
Christiania	372	90	**4,136**
Hamar	213	56	3,803
Christiansand	158	52	3,038
Bergen	111	55	2,018
Trondhjem	158	56	2,821
Tromsöe	80	27	2,962
F.—Austria (various).			
Styria 1873	69	18	3,833
Silesia „	85	18	**4,722**
Lom.-Ven. 1851–54	220	78	2,819
German Austria	2,820	612	4,607
Military Frontiers „	130	38	3,421
Hungary and Banat „	1,404	352	3,988
Transylvania „	330	118	2,796
Gal.-Buc. „	1,166	272	4,286
G.—Italy (1864–77).			
Piedmont	1,221	271	4,505
Liguria	469	92	5,097
Lombardy	1,647	333	4,595
Venetia (1867–77)	977	278	3,514
Emilia	1,419	492	2,884
Umbria	181	65	2,784
Marches	361	90	4,011
Tuscany	995	246	4,044
Latium (1872–77)	185	31	5,967
Abruzzi	220	60	3,666
Campania	540	112	4,821
Puglia	252	75	3,360
Basilicata	87	23	3,782
Calabria	116	22	5,272
Sicily	552	140	3,944
Sardinia	97	22	4,409

By this it is clearly shown that the influence of sex is so powerful as to produce effects nearly uniform, whatever the general intensity of suicide may be in a given population. And the constant advantage of the feminine sex over the male is better shown in the numbers proportional to the population. The calculations on the number of the inhabitants of the two sexes naturally give more exact averages than the preceding, but the error which is committed in seeking only for the ratio in the hundred is but small, seeing that the numerical difference between men and women varies within limits from country to country, and year by year. In Europe the proportional relation of women to men stands at from 1,125 : 1000 in Little Waldeck, and 933 : 1000 in Greece. It might be supposed, *à priori*, that the majority or minority of women would influence the general average of a population; but to say the truth, every such relation is wanting, so that countries which have a larger number of women have more suicides than others with a smaller number.

Würtemberg, Saxony, Mecklenburg, and Switzerland are examples of the first; Austria, Russia, Spain, Italy, and Belgium of the second. Great Britain, which would occupy the eighteenth place in the European scale of suicide, takes the eleventh instead, owing to the proportion of women (1,043 women against 1,000 men).

Examining the proportions on the million inhabitants of each sex, we find that the almost general superabundance of women in civilized countries renders still smaller their average tendency to suicide.

It is easy to understand the great male preponderance. The difficulties of existence, those at least which proceed from the struggle for life, bear more heavily on man. Woman only shares in these through the affections, and

Countries [1]		Per million		Masc. per 100 F.
		M.	F.	
Sweden	1856–60	118	27·5	429
"	1870–74	(100)	(28·4)	352
Norway	1851–55	150·7	46·4	325
"	1856–60	145	44·8	327
"	1861–75	140	40	350
"	1866–70	120·8	36·9	327
Russia	1875	39·7	10	397
Denmark	1856–60	406	138	294
"	1865–74	407	118	345
"	1875–76	393	114	345
Netherlands	1869–71–72	58·1	10·9	533
England	1856–60	95·1	36·4	261
"	1858–65	98	34	288
"	1861–70	98·8	33·9	294
"	1872–76	107·1	35·5	302
Prussia	1856–60	198	47	421
"	1869–72	192·5	47·5	405
"	1873–76	210·0	52·5	400
Hessen-Darmstadt	1867–71	309	59	506
Bavaria	1856–60	118	29·3	403
"	1867–68–69–70	148·3	37·3	397
"	1871–76	147·6	34·2	431
Baden	1854–56	175	37·6	465
"	1870–74	257	46	558
Saxony	1856–60	386	110	351
"	1871–76	446·8	102·9	434
Würtemberg	1856–60	173	36·7	471
"	1860–69	209	41	510
"	1872–75	272	48	567
Switzerland	1876	363	48	756
Belgium	1870–76	116·3	21·1	551
France	1835–39	111·1	36·7	303
"	1840–44	125·9	41·8	301
"	1848–52	153·5	47·2	325
"	1853–57	158·5	53·8	294
"	1863–68*	(289)	(71·3)	(405)
"	1856–60	170	51·2	332
"	1866–70	210·7	51·5	409
Austria	1871–76	200·5	62·9	461
"	1856–60	109	22·2	493
Hungary	1873–77	228.	47·2	483
Italy	1851–54	48·6	12·1	400
"	1867	48·7	11·2	434
"	1868	48·4	12·9	375
"	1869	37·4	11·6	322
"	1870	47·4	13·4	353
"	1871	50·7	11·4	445
"	1872	51·7	13·9	371
"	1873	57·6	13·9	414
"	1874	56·9	13·8	302
"	1875	54·0	12·8	421
"	1876	54·0	13·8	391
United States (O'Dea)	1877	61·0	13·0	469
		250	30	833

[1] These proportional figures of the sexes are computed on the census taken nearest to the periods named, to which the actual suicides refer. In the French returns marked with an * children are excluded (Bertillon).

although she has a more impressionable nervous temperament, yet possesses the faculty of resigning herself more easily to circumstances. Self-sacrifice is, above all, the feminine virtue, as ambition is the characteristic of men; and whilst the former gives woman the energy necessary to face courageously the misfortunes and disappointments of life, the second, on the contrary, becomes all the more hurtful to man, inasmuch as he is less patient of the oppositions and obstacles which interpose with the satisfaction of his wishes, which are much more exacting and serious in him than in his companion. The developement of the psychical activities is, with our false and hurtful system of feminine education, almost exclusively a male characteristic and right; it is, therefore, just that he should pay the penalty of his own egoism. The passive part which woman takes in all physiological and social acts is the sole cause of this apparent contradiction which exists between her weak and impressionable nervous temperament, and her small inclination towards suicide. Whether courage is needed to commit self-destruction, or whether suicide is a cowardly act, as moralists maintain, is not matter for discussion here; however, the sexual difference in suicide would cause the supposition that a certain strength of character and moral force, which is generally wanting in woman, is necessary.

But the influence of sex is not confined only to the difference in the general returns of suicide; quite other effects of it might here be brought to view, but we will limit ourselves to a few additional considerations, because they also ratify the modifying action which biological conditions exercise on individual human will.

That the increase dwelt upon by us in the suicides of almost the whole of Europe bears rather upon one sex than on the other does not very clearly appear from the

figures referred to. In many countries, as, for example, Norway, England, Bavaria, Sweden, Würtemberg, France, and Belgium, the increase has been, during the last years, greater in the male sex; in a few others, as Denmark, Baden, Saxony, and Prussia (up to 1861–70), it has been larger in the other sex; and in some, as Austria and Italy, no excessive difference is shown between the two sexes. The Swedish statistics, which are the fullest, show this increase in the two sexes from 1776–1855, calculating the proportions on the hundred deaths by suicide on the general mortality.

Sweden	Suicides per 100 deaths			Sweden	Suicides per 100 deaths		
	M.	F.	A.		M.	F.	A.
1776–80 . .	0·11	0·04	0·07	1816–20 . .	0·32	0·07	0·20
1781–85 . .	0 11	0·04	0·08	1821–25 . .	0·39	0·12	0·26
1786–90 . .	0·12	0·04	0·08	1826–30 . .	0·39	0·10	0·25
1791–95 . .	0·15	0·06	0·10	1831–35 . .	0·37	0·11	0·24
1796–1800 . .	0·14	0·05	0·10	1836–40 . .	0·49	0·12	0·31
1801–05 . .	0·20	0·07	0·13	1841–45 . .	0·50	0·14	0·33
1806–10 . .	0·15	0·06	0·11	1846–50 . .	0·50	0·14	0·32
1811–15 . .	0·19	0·08	0·13	1851–55 . .	0·52	0·13	0·33

In these seventy years, then, suicide has *tripled* amongst women, but has *quintupled* among Swedish men. Let it be noted, however, that in the same series there are periods in which the growth is greater in one sex, afterwards succeeded by others in which it becomes less. On the other hand, the proportional relation between the two sexes maintaining nearly an equality, as we saw, during long periods, caused the supposition, *à priori*, that suicide increases as much among men as among women in one invariable or almost uniform way. As far back as you trace statistics the return of 3 *or* 4 *men against one woman* is always found. There must be numerous causes, both social and historical, which make the proportion of suicides vary in the two sexes; but certainly the oscillations are greater in the feminine sex, whilst the increase, though

extending over the whole population, seems sometimes to be greatest amongst women, sometimes amongst men, but generally more among the latter than the former.

The influence of sex is made much more evident in the monthly distribution of suicides. Owing to the peculiar organic structure of the brain of woman, it feels the action of atmospheric changes, especially of a high temperature, more than that of man; hence in woman there is a quicker developement of mental diseases and of suicidal tendency during the summer season, or when the first warmth of spring finds her organism less prepared to bear it. The comparison between the two sexes for several countries may be seen in the following table.

TABLE XXV.—*Influence of Sex on the Monthly Distribution of Suicide. Proportions per* 1,000, *the Months being reckoned at an Equal Number of Days.*

MONTHS	Italy 1864–76		France 1871–75		Prussia 1871–75		Bavaria 1871–75		Saxony 1847–58	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	60·6	53·5	73·3	74·7	61·9	58·7	62·1	61·0	66·0	52·5
February	78·1	75·6	72·0	74·8	64·9	57·4	76·8	56·2	66·5	72·0
March	85·9	77·1	85·4	85·2	80·3	79·2	82·3	69·9	82·2	67·8
April	96·2	106·4	99·8	97·0	94·4	94·9	103·8	103·1	89·4	96·6
May	112·5	112·7	96·9	96·3	99·6	90·3	**104·6**	105·3	110·5	113·6
June	**120·3**	**120·3**	106·7	**115·0**	**110·8**	107·4	104·1	84·1	**114·0**	101·7
July	98·7	116·8	**106·9**	103·6	102·5	**114·2**	104·2	**126·9**	109·8	**114·4**
August	84·1	98·4	86·5	76·9	89·4	99·2	95·9	81·0	84·6	90·7
September	73·3	71·1	76·1	72·3	84·9	79·2	77·8	79·7	73·9	77·1
October	66·5	55·8	71·1	75·6	77·4	87·5	66·2	81·0	79·2	83·9
November	64·4	46·7	64·0	66·3	71·5	69·7	62·3	77·9	61·6	62·7
December	59·4	65·6	61·3	62·3	62·2	62·3	59·9	73·9	62·8	67·0
SIX MONTHS. Warm six months (from April to Sept.)	5,851	6,257	5,729	5,611	5,816	5,852	5,904	5,801	5,817	5,941
Cold six months (from Oct. to March)	4,149	3,743	4,271	4,389	4,182	4,148	4,096	4,199	4,183	4,059
Differences	1,702	2,504	1,458	1,222	1,634	1,704	1,808	1,602	1,624	1,882
Number of cases	8,103	2,127	21,748	5,945	11,972	2,880	2,819	690	4,317	1,180
	10,530		27,693		14,852		3,509		5,497	

The greater proportion of suicides among women is manifest, whether during the whole season (Italy, Prussia,

and Saxony), or in the warmest months of June (France) or July (Bavaria). In Italy and Saxony is to be noted the same prevalence of suicides among women in the months of April and May, while the proportion offered by women in certain warm months (as July in Bavaria), largely exceeds the highest monthly average of men.

Presuming that this sexual difference was in a ratio with the developement of cases of madness in the summer season, we desired to find other proofs of it by more minute investigation :—'That is to say, what had been the monthly average of suicide through mental disease in the two sexes.' Availing ourselves of the data contained in Table XI., which it is useless to repeat here, we become convinced that among women violent deaths through madness are proportionally more numerous in those months which, by reason of their average temperature, operate fatally; that is, in April, when the first heat, although not intense, is felt exceedingly by the cerebral organism not yet accustomed to it; and in July, when the average monthly temperature reaches the maximum of the year. But sex betrays itself also in other differences. When speaking of the powerful influence which city life exercises over man in modern States, we found that the reason of it was the ardent, even feverish activity of which the great cities are the seat. If we reflect on the very different position given to women in the various social classes, the enquiry as to whether the female population of cities offers, when compared to that of the country, a larger degree of tendency to suicide, will appear of much interest. Now judging by the statistics of various countries, and contrary to what Wagner believed, there exists really this difference between the two categories of the feminine population. For example, proportionally fewer French women belonging to the cities kill themselves as compared

with men, than in country districts. The ratio per cent. is in fact as follows in the urban communes (above 2000 inhabitants) and in the country communes in France:

FRANCE	1866–70			1871–75		
	Actual numbers		Return per cent. of F.	Actual numbers		Return per cent. of F.
	M.	F.		M.	F.	
Urban communes .	8,881	2,041	18·56	8,979	2,309	20·45
Rural communes .	10,856	2,854	20·81	11,479	3,270	22·17
Abode unknown .	300	16	5·06	321	21	6·14
Total . .	20,037	4,911	—	20,779	5,600	—

This greater inclination of country women seems to exist in Italy also. Here are the figures for 1877:

ITALY	Suicides		Per cent. of F.
	M.	F.	
Communal chief towns of provinces . . .	370	55	12·93
Other urban communals	117	29	19·86
Rural communals	428	140	24·64
Total of the Kingdom of Italy	915	224	19·66

Here it is clear that the inferiority of the feminine sex increases with the extension of the centres of agglomeration; but in the suicides in the country, especially in Northern Italy and amongst the women, pellagra has so large a share that almost all this sexual difference should be attributed to it.

In Prussia also in 1869–72 the proportional ratio between the sexes was, in the cities 19·56 suicides by women to 100, whilst in the country it was a little higher, namely, 21·23 per cent. Separating then the towns with over 20,000 inhabitants from the others, we find the same scale for Prussian women as for Italian, that is to say (in the four years 1871–74):

Prussia	Suicides		Per cent. of F.
	M.	F.	
Towns with over 20,000 inhabitants . . .	1,910	433	18·5
All the towns	4,572	1,097	19·3
Country places	5,946	1,528	20·4

Hanover, nevertheless, showed to Wagner a slight advantage of women in the towns over those in the country, but it is greater in Sweden, where in 1851–55 the proportion of male suicides to feminine was 500: 100 in the towns and only 408: 100 in the country (per million in towns: male 259, female 52; country: male 102, female 25). Norway in the decennial 1856–65 had these actual numbers and proportional percentage of the two sexes:

Norway	1856–60			1861–65			1856–65		
	M.	F.	Per cent. of F.	M.	F.	Per cent. of F.	M.	F.	Per cent. of F.
Town districts . .	128	32	20·0	118	15	11·2	246	47	15·9
Country districts .	421	144	25·4	425	145	25·4	846	289	25·4
The whole kingdom .	549	176	24·1	543	160	22·7	1,092	336	23·5

Smaller but still expressive are the differences in Denmark for the decennial 1865–74. Let the small proportion of women, however, given by the capital be noticed:

Denmark, 1865–74	Actual numbers		Per million inhab.		Suicides F. per 100	Males against 100 F.
	M.	F.	M.	F.		
Copenhagen . . .	45·2	12·1	536	125	21·1	428
All the towns . .	96·0	28·0	480	129	22·5	372
Rural communes . .	262·5	79·1	386	115	23·2	335
The whole kingdom .	358·5	107·1	407	118	23·0	345

Lastly, no other part of Europe shows better than Saxony how urban life exercises its fatal influence of preference over the male sex. In the quinquennial 1859–63 the proportion of men is seen to exceed that of women all

the more in proportion as the inhabitants are more concentrated:

SAXONY, 1859–63	Per million inhabitants		Per 100 Women and Men
	Men	Women	
Principal towns (Dresden, &c.) . .	547·8	114·1	480
Smaller towns	501·0	128·6	389
All the towns together	515·3	124·1	415
Country	347·1	98·4	355
The whole kingdom	409·6	107·8	379

Up to this point we have spoken of the aggregate population of cities; it seems to us worth while to examine farther whether the influence of large capitals modifies diversely the sexual psychical characteristics as materially as do the towns. We have put together the following data of several important centres of population in Europe and the United States. (See Table, page 204.)

We cannot perceive a direct relation between the largeness of these centres and the sexual difference in suicide; two facts, however, result from our comparison. Firstly, we perceive in the cities of which we possess more than one period of returns that the predominance of males is larger in Paris, London, Stockholm, Copenhagen, and Westminster, and, on the contrary, it diminishes in Berlin and Vienna. In the second place, the high proportion of men with respect to women in many cities, as Geneva, Brussels, Naples, Basle, Leghorn, Rome, and Genoa, is noteworthy. So grave a sexual difference never appearing in the statistical numbers of a province or a region, it appears to be an effect of city life. And, indeed, from the collection of statistical facts reported, the pernicious influence which the customs and habits of large cities exercise on the moral character of the individual, of whichever sex, will be seen to receive confirmation; an influence which, being very strong over man, does not fail to be strong also over woman.

Proportional Return of the Sexes in the Great Towns.

		Actual numbers		Male per cent. Female
		Males	Females	
Paris	1834–43	3,215	1,380	233
"	1867	593	107	554
London	1861–70	1,909	760	251
"	1872–76	1,016	380	267
Berlin	1816–20	115	17	676
"	1821–30	204	41	497
"	1831–40	604	139	434
"	1841–50	598	145	412
"	1851–60	749	203	370
"	1861–70	1,121	283	396
"	1871–75	661	220	304
Vienna	1877	179	48	352
"	1876–77	—	—	333
Petersburg	1858–67	461	83	555
Stockholm	1861–66	220	38	579
"	1867–72	239	39	613
Copenhagen	1864–69	215	67	321
"	1870–74	237	54	439
Brussels	1876–77	87	12	725
Lübeck	1864–65	20	8	250
New York	1871–76	655	208	313
Philadelphia	1875	55	13	423
Geneva	1851–55	—	—	960
Basle	1876	22	1	(2,200)
Chemnitz	1875–76	44	11	400
Westminster	1812–16	—	—	239
"	1817–21	—	—	288
"	1822–26	—	—	221
"	1827–31	—	—	282
"	1832–36	—	—	315
Frankfurt-on-Main	1867–76	292	55	536
Rome	1875–77	66	8	825
Turin	"	80	16	500
Genoa	"	65	9	722
Bologna	"	55	11	500
Ancona	"	14	4	350
Florence	"	93	20	465
Pisa	"	15	2	750
Leghorn	"	35	3	1,166
Naples	"	59	5	1,180

§ 2. *Age.*

Quetelet was the first to work out the developement of the moral and physical faculties in the different ages of man; thus his most celebrated works turn upon determining the individual evolution in which that of the whole society is summed up and made concrete, particularly with regard to moral phenomena (psychological). There is a psychical agreement between the tendency to delinquency of a new

society and that of individuals in the period antecedent to their complete maturity. And this parallelism is also to be found in suicide, but in a contrary direction. Voluntary death is proper to long-established societies far advanced in material and moral perfection, whilst it is rare in those recently founded, where wants are fewer and fancy overrules reason. To such a collective divergence a different degree of suicidal tendency for each age of the individual corresponds; *it augments in the two sexes in direct ratio with age.* This important law of statistics has been, however, only recently discovered. The study of the age for suicide was begun by committing the error of seeking its proportional ratio in actual numbers without collating them with the number of the survivals of each age. So long as sex was in question, such a precaution might be neglected, the numerical difference being very slight; not, however, in the question of age, where the disparity increases, owing to the different survival at each period of life. Nevertheless, even from the mere proportional relation between the actual numbers it is possible to draw important statistical laws; and first of all, that of the regularity with which the ages of the suicides are ordered, as well in the succeeding years of one particular series as in the series belonging to different States. The chronological regularity is proved in Table XXVI., which shows the proportions per 1,000 of various ages, calculated on the statistics of suicides which happened in England and Wales in the ten years from 1865 to 1874, whilst the uniform distribution according to the various periods of life in different countries is confirmed by the other Table XXVII., where we have printed the same proportions per 1,000 in many European countries. So diverse are the modifications caused by age according to the sex of the individual, that we cannot do otherwise than keep the women suicides divided

TABLE XXVI.—*Influence of Age on the Tendency to Suicide in England and Wales. Regular Distribution of Suicides at Different Ages (Period 1865–74).*

SEX AND AGE	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	Per. 1861–70 Num. of cases	Per. 1861–70 Prop. p. 1000	Per. 1871–74 Num. of cases	Per. 1871–74 Prop. p. 1000
MEN														
Number of cases	974	993	963	1,117	1,178	1,160	1,103	1,095	1,129	1,204	10,302	1000·0	4,531	1000·0
Age from 5 to 10 years	—	—	—	—	—	—	—	—	—	—	—	—	—	—
„ 10 „ 15 „	4·1	2·0	3·1	9·9	4·2	2·6	3·6	5·3	3·5	2·5	47	4·6	17	3·7
„ 15 „ 20 „	24·7	36·3	29·1	25·1	31·4	25·0	23·6	21·9	20·4	26·6	280	27·2	105	23·2
„ 20 „ 25 „	46·2	53·4	48·8	54·6	56·9	45·7	42·6	52·1	54·0	53·1	534	51·8	229	50·5
„ 25 „ 35 „	108·8	160·1	138·1	148·6	130·8	131·9	151·4	126·0	140·8	138·7	1,381	134·0	631	139·3
„ 35 „ 45 „	216·6	200·4	177·6	182·6	203·7	169·8	195·8	201·8	195·8	185·2	1,937	188·0	881	194·5
„ 45 „ 55 „	**246·4**	**221·6**	**242·0**	**222·0**	**213·1**	**235·3**	**230·3**	**224·7**	208·4	187·7	2,368	**229·9**	959	211·7
„ 55 „ 65 „	201·2	203·4	214·9	219·3	213·1	229·3	212·1	211·9	**214·4**	**231·7**	2,262	219·6	987	**217·8**
„ 65 „ 75 „	120·1	89·6	121·5	107·4	117·1	125·0	104·3	123·3	123·1	137·9	1,175	114·0	555	122·5
„ 75 „ 85 „	29·8	29·2	21·8	27·8	27·2	32·8	32·7	31·0	38·1	31·6	290	28·2	151	33·3
„ 85 and upwards	2·1	4·0	3·1	2·3	2·5	2·6	3·6	1·8	3·5	5·0	28	2·7	16	3·5
WOMEN														
Number of cases	345	347	353	391	409	394	392	419	389	388	3,707	1000·0	1,588	1000·0
Age from 5 to 10 years	2·9	—	—	—	—	—	—	—	—	2·6	1	0·3	1	0·8
„ 10 „ 15 „	11·6	5·8	2·8	17·9	17·1	5·1	7·7	7·2	10·3	7·7	37	10·0	13	8·2
„ 15 „ 20 „	87·0	74·9	102·0	56·3	80·7	71·1	76·5	54·9	77·1	59·3	314	84·7	106	66·7
„ 20 „ 25 „	118·8	80·7	102·0	63·9	61·1	96·5	79·1	81·2	69·4	74·7	317	85·5	121	76·2
„ 25 „ 35 „	130·4	161·4	170·0	171·4	164·0	180·2	148·0	174·2	146·5	154·6	572	154·3	248	156·2
„ 35 „ 45 „	144·9	**247·8**	172·8	209·7	178·5	180·2	**191·3**	164·7	169·7	175·3	673	181·5	278	175·1
„ 45 „ 55 „	**226·1**	213·2	**215·3**	**222·5**	**210·3**	**195·4**	188·8	**212·4**	**200·5**	**221·1**	790	**215·5**	327	**205·9**
„ 55 „ 65 „	162·3	118·2	116·1	143·2	173·6	165·0	173·5	157·5	192·8	177·8	565	1 · ·4	278	175·1
„ 65 „ 75 „	87·0	77·8	104·8	79·3	90·5	76·1	102·0	121·7	105·4	100·5	815	85·0	171	107·7
„ 75 „ 85 „	29·0	14·4	14·2	30·7	29·4	27·9	30·6	26·2	28·3	25·8	103	27·8	44	27·7
„ 85 and upwards	—	5·8	—	5·1	4·8	2·5	2·5	—	—	—	11	3·0	1	0·6

from the men, and the examination of our tables immediately shows the importance of such a distinction. It is, however, necessary to give warning that unfortunately the statistics are not collected everywhere on one system; thus in England and Wales (whose averages we have been forced to keep separate from the others) the age of the suicides is registered, after 20 years, from the half of one decennial to the next, that is to say, from 25–35, 35–45, &c., whilst in all other countries it is reckoned from 20 to 30, 30 to 40, 40 to 50, &c. Another warning necessary to give is that now the decennial goes from 20 to 29, from 30 to 39, &c. (Switzerland and Italy), from 21 to 30, 31 to 40, &c. (in France and Saxony). Lastly (and this is the greatest and most inconvenient difference), the age below 30 or 25 in some countries is sub-divided into three or even five periods; thus as in England, where suicides are registered from 5 to 10 years of age, 10 to 15, 15 to 20, 20 to 25, and from 25 to 35.

On the other side, also among the suicides of youth, we stumble on another defect in statistics, because in some countries the suicides are registered under **16** years and from **16** to **21**, whereas in others are noted those under **15** years and from **15** to **20**, and again in others (as Saxony) under **14** and from **14** to **21**. Notwithstanding all this statistics furnish most important elements and adapted for comparison if the diverse periods of existence are considered (as youth, maturity, old age, decrepitude) and not single years.

Examining the figures of the ten categories of age, not only is there to be seen a most regular distribution of suicides in corresponding periods, but important differences between various countries and the two sexes are made manifest. The proportions of ages ascend progressively

TABLE XXVII.—*Influence of Age on the Proportions per* 1,000 *of the Different*

SEX AND AGE	Sweden 1847–55	Denmark 1845–56	Denmark 1865–74	Bavaria 1871–76	Prussia 1869–72	Prussia 1873–75
MEN						
Number of cases known	1,140	2,770	3,576	2,173	9,193	7,104
Under 16 years	14·1	79·0	14·6	50·2	13·0	12·2
From 16 to 21 years	22·8		38·3		56·9	58·9
„ 21 „ 30 „	174·0	149·0	105·4	173·0	188·9	187·4
„ 31 „ 40 „	260·0	163·0	140·7	179·5	155·9	158·1
„ 41 „ 50 „	240·0	196·0	213·7	185·0	193·2	185·8
„ 51 „ 60 „	187·0	181·0	238·5	203·9	203·6	205·8
„ 61 „ 70 „	78·0	138·0	166·9	135·9	133·7	131·9
„ 71 „ 80 „	23·7	79·0	81·9	59·8	46·7	51·2
„ 80 upwards		15·6		8·7	8·0	8·7
Total	1,000	1,000	1,000	1,000	1,000	1,000
Cases of unknown ages	—	—	9	—	253	282
WOMEN						
Number of cases known	260	922	1,068	526	2,352	1,720
Under 16 years	15·4	88·0	4·7	62·8	9·4	15·2
From 16 to 20 years	46·0		88·1		98·6	101·8
„ 21 „ 30 „	281·0	258·0	173·2	201·5	216·0	219·8
„ 31 „ 40 „	173·0	159·0	148·9	171·1	157·3	161·0
„ 41 „ 50 „	196·0	142·0	163·9	186·3	176·9	139·5
„ 51 „ 60 „	165·0	144·0	180·7	167·3	166·2	170·9
„ 61 „ 70 „	89·0	120·0	29·2	136·9	113·5	120·9
„ 71 „ 80 „	24·6	64·0	113·3	66·5	49·7	58·7
„ 80 upwards		15·2		7·6	12·3	12·2
Total	1,000	1,000	1,000	1,000	1,000	1,000
Cases of unknown ages	—	—	3	—	20	33

Tendency to Suicide in the States of Europe.

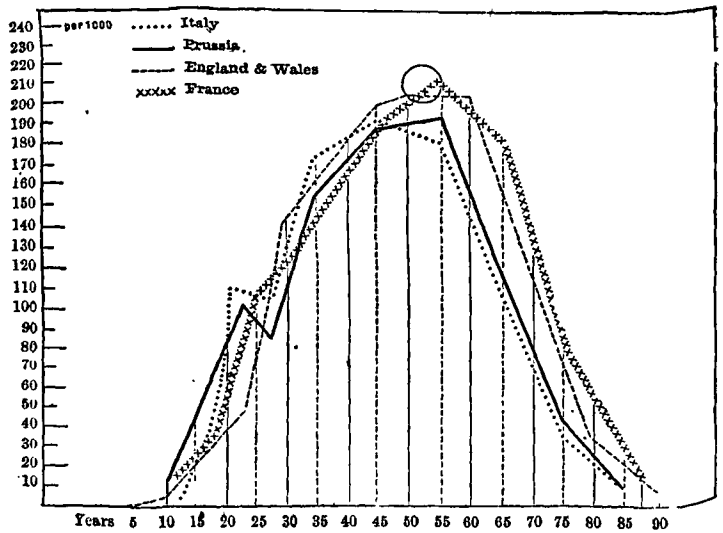
Ages of the Suicides of Both Sexes.

Kingdom of Saxony			Würtemberg 1856–60	Belgium 1840–49	France			Switzerland 1876	Austria 1851–54	Hungary 1851–54	Italy 1866–77
1847–56	1857–66	1867–76			1836–1.	1851–60	1866–76				
3,490	4,419	5,789	2,138	1,618	19,276	28,430	44,857	455	2,095	1,161	8,155
7·7	8·4	8·6	24·0	6·8	7·6	6·8	5·6	6·6	19·6	23·0	5·4
78·2	83·3	90·3	51·0	30·0	45·0	33·0	29·3	35·1	54·0	64·0	43·7
170·8	153·6	152·9	162·0	147·0	167·0	131·0	107·5	171·4	179·0	**250·0**	**217·4**
379·7	**367·5**	**361·7**	197·0	188·0	194·0	172·0	150·5	219·7	189 0	206·0	169·6
			222·0	**232·0**	**212·0**	209·0	195·6	**224·1**	194·0	181·0	195·9
304·6	336·7	333·6	194·0	217·0	169·0	**220·0**	**216·9**	171·4	**206·0**	165·0	190·3
			103·0	127·0	124·0	144·0	138·4	136·2	113·0	84·0	128·7
59·0	50·5	52·9	41·0	54·0	67·0	71·0	89·5	35·1	37·0	22·0	41·1
			4·0		14·0	42·7	15·7	—	8·6	5·2	8·3
1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
85	102	206	—	336	828	480	864	19	83	76	98
921	1,207	1,405	488	410	6,505	9,179	11,626	66	468	338	2,077
6·5	10·8	5·0	14·0	41·0	6·9	9·2	10·4	—	6·4	12·0	5·8
121·6	132·6	156·7	61·0		72·0	68·0	55·6	75·8	73·0	82·0	74·6
185·7	**193·8**	**187·9**	192·0	151·0	171·0	155·0	126·1	195·5	**235·0**	**299·0**	**214·3**
324·6	333·0	330·9	186·0	183·0	161·0	158·0	144·6	227·3	218·0	190·0	187·3
			229·0	**225·0**	**195·0**	**182·0**	180·5	**272·2**	164·0	177·0	195·5
285·6	281·7	266·9	178·0	212·0	178·6	182·0	**197·0**	121·1	179·0	146·0	171·4
			106·0	124·0	137·0	152·0	165·8	75·8	94·0	67·0	107·8
76·0	48·0	52·7	32·0	64·0	65·0	77·0	97·6	30·3	30·0	21·0	31·3
			2·0		13·5	26·8	22·4	—	—	8·0	12·0
1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
	14	14	—	64	237	116	124	—	7	15	17

up to the fifth decennial period, beyond which they diminish with as much uniformity.

The curve then which may be constructed on the actual numbers reduced to so many proportions per cent. would be regularly parabolic, as it is in fig. 4 below,

FIG. 4.



Age of suicides in Italy, Prussia, England, and France.
(Curve of the returns per 1000 of the actual numbers.)

representing the aggregate proportions, without distinction of sex, of the age of suicides in France, Italy, Prussia, and England; but we shall soon see how, giving them the true proportional value on the population distinguished by age, that these curves have quite a different inclination.

From the actual numbers of the two sexes united together that period of life which includes the ages between twenty-one and fifty would appear to be the most favourable to the

developement of the tendency to suicide; indeed, generally the greatest number of suicides would happen between forty and fifty years of age. From the international comparison, then, of Table XXVII. we ascertain the amount of loss sustained by the principal States through suicide.

This loss of vital productive elements is naturally greater when the larger number of suicides happens at mature age, when, as Mayr remarks (*loc. cit.*), the culminating point of the experience of life is reached. The disappearance of so many useful individuals is for human society an immense waste of force accumulated during many years. Calculating the aggregate of the years lived through by those who cut off spontaneously their existence, and supposing an equal amount of experience to be acquired every year by each suicide, we should then see how far this loss varies in the States of Europe. As an example of similar comparative statistics, on which the size of our book does not allow us to dilate, we give the number of the years lived through in the various categories of age of the suicides in Italy, France, and Prussia. In our calculations we have supposed that the years enjoyed by each group in the following series are represented by the mean year of each period.

Number of Years Lived by each Group of Suicides in the Aggregate with Respect to Age, and with the Difference of Sex.

Series of Ages	Italy 1866-77		France 1866-76		Prussia 1869-75	
	M.	F.	M.	F.	M.	F.
Under 15 years	572	156	3185	1,573	2587·5	600
From 15 to 20 years	6,230	2712·5	23920·5	9,090	16407·5	7122·5
„ 20 „ 25 „	20,475	5167·5	118,400	36,650	39,285	11,475
„ 25 „ 30 „	23732·5	11,615			36,355	10,340
„ 30 „ 40 „	48,405	136,175	233,390	25,235	80,460	22,645
„ 40 „ 50 „	71,910	18,270	867,720	91,455	138,320	29,520
„ 50 „ 60 „	85,360	19,580	525,690	125,950	183,370	37,675
„ 60 „ 70 „	67,990	14,560	519,565	125,320	140,790	30,875
„ 70 „ 80 „	25,125	4,875	295,800	85,125	59,475	16,350
„ 80 and upwards	5,780	2,125	58,650	22,160	11,660	4,250
Aggregate of years lived by the Suicides	355579·5	92,976	2166400·5	526,098	718,670	170,252

For those who appreciate the immense capital represented by this aggregate of individual life, the loss suffered by the three populations in the last twelve years will appear very large. Supposing the average life to be in Italy and Prussia twenty-seven years and in France thirty-one (Wappäus), and adding up the years lived by the aggregate of suicides, it is easy to see that the loss undergone by Italy in the twelve years 1866–77 is equal to 16,613 individuals in the best time of life; that of France in eleven years 1866–76 to 86,854, and lastly, that of Prussia in seven years 1869–75 to 28,675.

That being premised of the general signification of the figures, let us observe how the suicides are distributed with regard to age in the various countries and between the two sexes. It is in Hungary and Italy that the population loses a greater number of young men from 21 to 30 years of age; on the other hand, the countries which pay a heavier tribute at ages above 50, are Denmark (1865–74) and France (1866–76). In Sweden the highest place in actual numbers is filled by men between 30 and 40 years of age; in Bavaria and Denmark (1845–56), Würtemberg, Belgium, and Switzerland, that place is taken by those between 40 and 50, and lastly, it is held by men between 51 and 60, in Denmark (1865–74), Bavaria, Prussia (1873–75), France (recent years), and Austria. In England, the largest contingent of suicides is given by men between 45 and 55 years of age. As to women, the young ones between 20 and 30 years old commit more suicides in Sweden, Denmark (1845–56), Bavaria, Prussia, Saxony, Austria, and Hungary; among the English the larger proportion is between 35 and 45 years of age; and in other countries suicide steals away adults chiefly, those, that is to say, above 41, and especially

in Denmark (1865–74), where the highest place is held by the sixth category of age.

This general collation shows, indeed, an essential difference between the two sexes throughout Europe, since suicide would happen to the aggregate of European women at an earlier age than to men; thus male suicides preponderate from the fortieth year upwards, whilst women have a tendency to end their lives on this side of the fifth decennial, generally under the age of 30 or at most 35. This law, which shows very clearly the diverse physico-psychological organisation of man and woman, is unchangeable in all statistics, and even where a superficial examination of actual numbers alone or of their proportions per thousand would raise the suspicion of grave exceptions, a more exact computation based on the proportional relation of the two sexes at every period of existence reveals the wonderful agreement of all the facts. Indeed, we are able to perceive that the prevalence of men over women is *least* in youth, *greatest* in adults, whilst it becomes *small* in old age and decrepitude. Below are the results of some of our calculations for various countries, and with an addition, as usual, of other less recent periods, taken from the great monograph of Wagner and Quetelet (Table XXVIII.) The proportions in the first column are only for suicides whose ages were known, and thus their difference from those referred to in the section on sex is explained.

Men predominate least in the second category of ages in every country except Galicia, in which the third period of existence takes the lowest place. In England the number of young women who commit suicide between 15 and 20 years of age is so large as to exceed by more than a tenth the number of men. For the rest that precocity of suicide in English women lasts up to the thirtieth

TABLE XXVIII.—*Influence of Age combined with Sex on Suicide.*
Proportional Relations between the two Sexes at Various Ages.

COUNTRIES AND PERIODS		Men on 100 Women									
		For all ages	Under 16 years of age	From 16 to 20 years of age	From 20 to 30 years of age	From 30 to 40 years of age	From 40 to 60 years of age	From 50 to 60 years of age	From 60 to 70 years of age	From 70 to 80 years of age	Above 80
Sweden	1847–55	438	400	217	271	638	535	496	387	300	
Denmark	1835–44	289	289		157	290	410	534	305	257	214
"	1845–56	301	270		173	308	415	377	320	370	307
"	1865–74	335	1,040	149	204	322	436	442	433	245	
Bavaria	1857–62	391	325		314	365	478	367	519	492	0 w.
"	1871–76	413	330		355	433	420	503	422	386	475
Prussia	1869–72	398	545	225	341	387	427	479	460	366	255
"	1873–75	413	335	239	352	405	550	497	450	360	295
Saxony	1847–56	379	450	244	248	443		404		294	
"	1857–66	366	284	230	290	404		438		384	
"	1867–76	412	714	238	335	450		515		413	
Würtemberg	1856–60	438	442		378	464	423	485	419	544	700
Belgium	1840–49	395	0 w.	294	384	405	409	405	400	315	
France	1835–44	298	327	184	277	357	319	280	278	305	316
"	1851–60	311	230	148	263	338	356	350	293	289	239
"	1866–76	382	202	200	323	411	410	417	430	347	265
Switzerland	1876	718	0 w.	320	600	667	567	975	1,240	800	—
Austria	1851–54	448	1,367	335	340	388	528	512	558	557	0 w.
Hungary	1851–54	352	675	274	296	385	362	400	481	371	300
Galicia	1851–54	427	1,600	500	275	478	410	626	612	1,300	300
Italy	1866–77	394	367	230	398	355	394	436	467	515	248
			Up to 15		15–	20–	35–	45–	55–	65–	75–	85 *and upwards*
England and Wales	1861–70	278	129	89	182	288	296	400	373	281	254

year, when the proportional relation between the two sexes becomes nearly equal to the average. The masculine excess seems to diminish also in extreme old age, so that at above 70, the two sexes tend to draw near again almost to what they were in the most advanced period of youth and the first years of maturity.

But the relation between the number of suicides at each particular age and that of the surviving individuals to each of them, is much more expressive of the conclusion here aimed at. Turning to the actual numbers, it would appear that old age is a favourable condition to the probable commission of suicide. On the contrary, however, the probability, instead of diminishing, increases in direct ratio with age, at least up to the seventieth year, after which it shows sometimes irregular diminutions, sometimes sudden augmentations. There are but few and insignificant exceptions to this law of statistics, as is well proved by the numerous comparative data given in Table XXIX., collected either by Wagner, Oettingen, Blanc, Quetelet, &c., or directly from the official publications. Of the three parts into which the table is divided, the first contains the proportions on the million of living people, and of each division of age for both sexes. But in order to prove the law of increase of the tendency to suicide in advanced age, the relative figures printed in the second part of the table are of more value, and these have been obtained by adding together the proportional excesses, and reducing them to a relative percentage. From which it may be understood that the one compares the *absolute intensity*, and the others the *relative intensity* of suicide at each age. The better to impress on the reader's mind the uniform method of developement of the tendency to suicide according to the ages of mankind, we add the graphic curves for men (fig. 5), and for women

TABLE XXIX.—*Influence of Age combined*
(Proportions per Million and

	Ages	Sweden 1847-55	Denmark 1835-44	Denmark 1845-56	Denmark 1865-71	Prussia 1869-72	Prussia 1873-75	Bavaria 1867-69	Würtemberg 1856-60	Kingdom of Saxony 1847-58	Kingdom of Saxony 1861-67 1872-76
Per million inhabitants of each age. Actual numbers	**A.—MEN**										
	Under 16 years	3·5	85	70	28	10·8	10·5	13·6	25·0	9·6	296
	From 16 to 20 years	19·1			165	114·5	122·0			210	418
	20 „ 30 „	91·3	313	363	279	226·2	231·1	132	169·1	396	671
	30 „ 40 „	161·3	353	463	441	225·1	235·1	149	244·6	551	
	40 „ 50 „	206·3	553	707	758	350·2	347·0	219	347·3		
	50 „ 60 „	201·7	892	935	1,143			263	396·1	906	1,324
	60 „ 70 „	146·3	878	1,272	1,281	500·6	529·0	253	345·9		
	70 „ 80 „	93·7	785	1,384	1,158			221	305·9	917	1,515
	80 and upwards		1,138	1,219				177	101·3		
	B.—WOMEN										
	Under 16 years	0·9	30	27	3	2·0	3·2	4·2	5·7	2·4	123
	From 16 to 20 years	8·8			112	50·0	50·3			85	123
	20 „ 30 „	29·2	195	190	130	61·3	60·8	43·2	44·8	108	155
	30 „ 40 „	23·2	122	150	134	55·7	55·6	40·1	52·3	126	
	40 „ 50 „	35·0	129	168	171	79·4	61·6	45·8	82·1		246
	50 „ 60 „	34·2	151	233	249			71·3	81·0	207	
	60 „ 70 „	27·9	246	308	260	110·1	113·9	48·6	82·6		
	70 „ 80 „	19·4	244	300	368			44·0	56·2	297	325
	80 and upwards		322	269				—	14·5		
Comparative intensity at each age. Relative numbers per 100 on actual numbers	**A.—MEN**										
	Under 16 years	0·38	1·7	1·1	0·5	0·75	0·71	0·95	1·3	0·3	9·9
	From 16 to 20 years	2·1			3·2	8·02	8·27			7·0	
	20 „ 30 „	9·9	6·7	5·8	5·3	15·85	15·68	9·2	8·7	13·2	16·9
	30 „ 40 „	17·4	7·1	7·3	8·4	15·77	15·94	10·4	12·6	18·3	
	40 „ 50 „	22·1	11·1	11·2	14·4	24·53	23·53	15·3	17·9		51·3
	50 „ 60 „	21·9	17·0	14·8	21·8			18·5	20·6	30·4	
	60 „ 70 „	15·8	17·6	18·6	24·3	35·08	35·87	17·7	17·8		35·9
	70 „ 80 „	10·1	15·6	21·9	22·0			15·5	15·9	30·8	
	80 and upwards		22·8	19·3				12·4	5·2		
	B.—WOMEN										
	Under 16 years	0·5	2·1	1·6	0·2	0·56	0·93	1·4	1·4	2·9	12·7
	From 16 to 20 years	5·0			7·9	13·95	14·56			10·3	
	20 „ 30 „	16·4	11·5	11·5	9·1	17·10	17·60	14·5	10·7	13·1	12·7
	30 „ 40 „	13·0	8·4	9·1	9·4	15·54	16·10	13·5	12·6		
	40 „ 50 „	19·5	9·0	10·2	12·0	22·15	17·83	15·4	19·5	15·3	15·9
	50 „ 60 „	19·1	10·5	14·2	17·4			21·0	19·3		
	60 „ 70 „	15·6	17·1	18·7	18·2	30·70	32·97	16·3	19·7	25·1	25·3
	70 „ 80 „	10·9	17·0	18·2	25·8			14·9	13·4		
	80 and upwards		22·4	16·4				—	3·5	35·9	33·4
Proportional relation of the two sexes at each ago	**MEN** Compared to 100 Women										
	Under 16 years	102	282	258	933	504	328	1,510	438	400	340
	From 16 to 20 years	217			147	229	242			217	339
	20 „ 30 „	312	161	191	214	369	380	305	377	366	433
	30 „ 40 „	695	290	309	329	404	422	371	463	437	
	40 „ 50 „	589	409	421	443	441	563	478	423		538
	50 „ 60 „	589	590	401	459	454	464	368	489	437	
	60 „ 70 „	524	357	381	418			520	418		466
	70 „ 80 „	483	322	461	314			525	544	308	
	80 and upwards		353	453				0 w.	691		

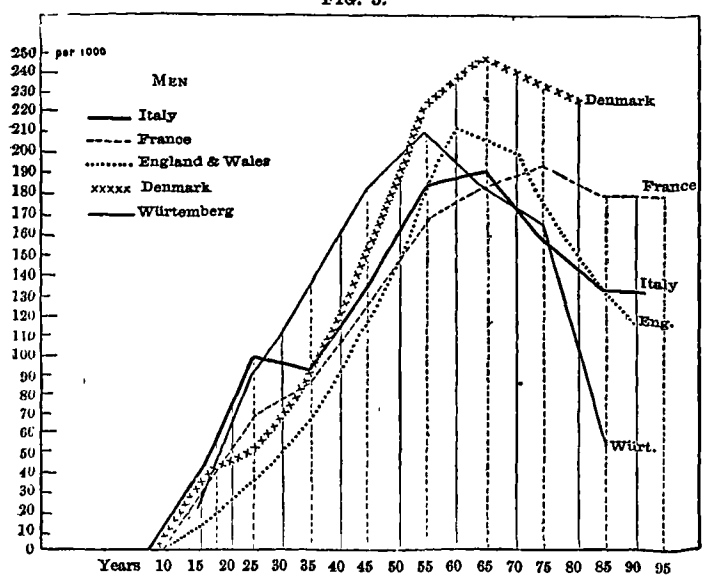
with Sex in the Principal States of Europe.
Relation between the two Sexes.)

Belgium 1840–49	France 1835–44	France 1849–53	France 1854–58	France 1851–60	France 1861–65	France 1863–68	Austria 1852–54	Switzerland 1876	Italy 1872–76	England and Wales — Ages	England and Wales 1861–70
										From 10 to 15 years	4
1·5	2·2			3·6		?	3·7	(23)	3·2	„ 15 „ 20 „	28
25·4	56·5	60	61	62·5	64	64	36·0	140	32·3	„ 20 „ 25 „	59
73·7	130·5			149	139	139	87·3	370	77·0	„ 25 „ 35 „	93
102·7	155·6	169	188	183	251	203		535	72·3	„ 35 „ 45 „	163
143·5	204·7	250	259	258		305	144·6	639	102·3	„ 45 „ 55 „	262
225·6	217·9	319	351	344	449	406		660	140·0	„ 55 „ 65 „	375
180·6	274·2	334	400	385		511		760	147·8	„ 65 „ 75 „	357
117·1	317·3	357	426	401	465	461	163·5	487	124·3	„ 75 „ 85 „	256
	345·1	307	386	368		?		—	103·8	„ 85 and upwards	204
										From 10 to 15 years	3
—	1·2			1·6		?	0·43	—	1·0	„ 15 „ 20 „	30
8·8	31·7	25	29	41	39	38	1·13	43	12·2	„ 20 „ 25 „	31
19·4	44·5			52	42	42	24	56	18·9	„ 25 „ 35 „	35
25·8	44·0	51	56	55	63	50		75	19·9	„ 35 „ 45 „	52
36·8	64·7	70	75	74		77	33	107	20·0	„ 45 „ 55 „	83
47·5	74·8	83	92	91	104	95		63	32·0	„ 55 „ 65 „	86
39·8	83·7	98	122	111·4		116		57	34·5	„ 65 „ 75 „	83
32·5	91·8	104	131	123·1	131	130	35·6	61	29·1	„ 75 „ 85 „	72
	81·4	116	119	116·6		?		—	33·8	„ 85 and upwards	50
										From 10 to 15 years	0·2
0·2	0·1			0·17	4·6	?	0·8	0·6	0·4	„ 15 „ 20 „	1·6
2·9	3·3	3·4	2·9	2·3		3·1	8·7	3·9	4·0	„ 20 „ 25 „	3·3
8·4	7·7			6·9	10·1	6·6	20·0	10·2	9·8	„ 25 „ 35 „	5·2
11·8	9·1	9·4	9·1	8·5	18·5	9·7		14·8	9·0	„ 35 „ 45 „	9·1
16·5	12·0	13·9	12·5	12·0		14·6	33·1	17·7	12·7	„ 45 „ 55 „	14·5
26·0	12·8	17·8	16·9	16·0	32·8	19·4		18·3	17·4	„ 55 „ 65 „	20·8
20·8	16·1	18·6	19·4	17·9		24·5		21·0	18·5	„ 65 „ 75 „	19·2
13·5	18·6	19·8	20·6	18·6	34·0	22·1	67·4	13·5	15·5	„ 75 „ 85 „	14·2
	20·3	17·1	18·6	17·1		?		—	12·9	„ 85 and upwards	11·3
										From 10 to 15 years	0·6
—	0·2			0·24	10·1	?	0·5	—	0·5	„ 15 „ 20 „	5·7
4·2	6·1	4·6	4·7	6·1		6·9	1·2	9·3	5·9	„ 20 „ 25 „	5·9
9·2	8·6			7·8	11·1	7·7	25·5	12·1	9·1	„ 25 „ 35 „	6·7
12·3	8·5	9·3	9·0	8·4	16·6	9·1		16·2	9·5	„ 35 „ 45 „	9·9
17·4	12·5	12·8	12·0	11·1		14·1	35·1	23·2	12·5	„ 45 „ 55 „	15·8
22·5	14·4	15·2	14·7	13·7	27·4	17·3		13·6	15·4	„ 55 „ 65 „	16·4
18·9	16·2	17·9	19·5	16·7		21·2		12·4	16·6	„ 65 „ 75 „	15·8
15·5	17·7	19·0	21·0	18·5	34·6	23·7	37·8	13·2	14·2	„ 75 „ 85 „	13·7
	15·7	21·2	19·1	17·5		?		—	16·3	„ 85 and upwards	9·5
										From 10 to 15 years	133
0 w.	183			225	164	?	860	0 w.	320	„ 15 „ 20 „	93
289	178	240	210	152		168	336	302	264	„ 20 „ 25 „	193
380	293			286	330	330		660	407	„ 25 „ 35 „	265
368	353	331	335	332	398	406	362	713	368	„ 35 „ 45 „	313
399	316	357	345	346		396	438	597	393	„ 45 „ 55 „	315
475	291	384	381	378	431	427		1,047	437	„ 55 „ 65 „	436
454	327	340	327	345		410	459	1,333	425	„ 65 „ 75 „	442
360	345	343	325	324	354	354		798	422	„ 75 „ 85 „	355
	423	205	324	315		?		—	307	„ 85 and upwards	408

(fig. 6), in Italy, France, Denmark, Würtemberg, and England.

The curves are constructed upon the relative, not the absolute numbers, because the progressively uniform advance of the different countries is better shown in this way. In each of the sexes separately considered, the

FIG. 5.



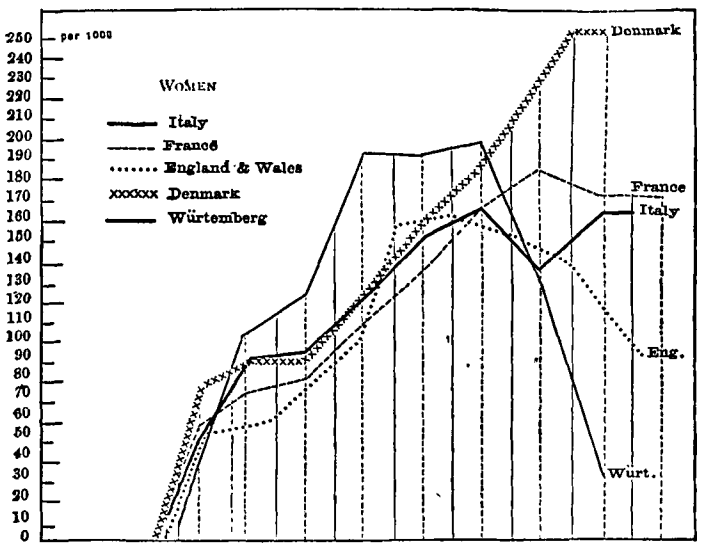
Tendency to suicide in man according to ages.

curve becomes analogous to the aggregate of the whole population; and in fact, even when setting aside the influence of sex, the influence of age continues to assert itself with great efficacy.

Two periods in life are characterised by a special inclination towards suicide; the first from youth to complete manhood is one of *developement* or growth; the

second lasts during manhood, and extends to almost the whole of old age, and may be called *stationary*, although it does not fail to share in the general parabolic evolution of the curve. There occurs in the last age and decrepitude a third period, that of *declension* of suicide, which coincides with that of the organs and the mind.

FIG. 6.



Tendency to suicide in woman according to ages.

The diminution in the last period of life is much more irregular than in all the other conditions: strongest in Würtemberg, less so in Sweden, Belgium and England; very weak in France, Bavaria and Italy; failing almost entirely in Denmark (1835–44) Saxony, Austria, and perhaps Prussia. This diminution of suicide amongst the old belongs to the weakening of their character and to that

want of energy natural to the last period of existence, in which man returns almost to childhood, and not having a long future before him, and even if overtaken by misfortune, he prefers to await the natural end of his days. Moreover, the religious sentiment awakens and revives in old age, acting as a curb to the passionate emotions and as a supreme comfort in adversity.

As to the influence of sex it is very distinct throughout. The tendency to suicide always shows itself early in woman, and the increase during the first period is more rapid and strong than in man. The developement of a woman is indeed very energetic in early youth. Arrived at puberty she undergoes modifications so sudden and numerous, in order to make her rapidly attain the maturity necessary for the exercise of the reproductive functions. The youth of man lasts longer, and it is only much later that he becomes adapted physically, as well as socially, for the creation of a new family. All the figures given by us above show how the numerical returns of women increase up to twenty years of age, and go on up to thirty, which is never the case in the later periods of life. In the third part of Table XXIX. and at Table XXVIII. so many proofs of this law are given, that we believe further insistance on this is useless. Even among American suicides Dr. O'Dea confirms this invariable influence of sex and age. Yet the leap is worthy of note which the suicidal tendency in women undergoes towards the fifth decennial of life, when the critical or menopausis epoch happens, which so often disturbs the organic and psychical functions of woman. Ethnological divergencies are also noted in this report; the Danish woman is proportionally more precocious in suicide, more nearly approaching man. Also among Italian women, although in a warmer climate, a remarkable degree of precocity is observed, inferior, however, to that of

the Danes, which demonstrates that here the influence of climate amounts to nothing. But it is in the Austrian-Hungarian countries that the differences of race are most evident. Dividing them into four ethnic groups, the greatest precocity will be found among the men of the Slavo-Italians of the south, the least among the Czechs; and as for the women the case is reversed, and among the Czechs they are the most precocious, and the Germans the least so. The following are the proportions per 1000 suicides which happened in the fifteen years 1851–65 for each of the four groups of countries:—

Ages (per 1000)	I. Germans		II. Czechs		III. Slavo-Italians		IV. Polish-Russians	
	M.	F.	M.	F.	M.	F.	M.	F.
Under 15 years	9	10	6	19	21	9	20	6
From 15 to 20 years . . .	55	43	46	94	70	81	53	74
„ 20 „ 30 „	181	213	237	283	195	293	216	242
„ 30 „ 60 „	611	587	596	528	573	496	627	616
„ 60 and upwards . .	114	147	115	76	141	121	84	62

The suicides of children under 15 years of age deserves special attention. Suicide is the prerogative of the age of reason and reflection, and is rare in youth, and exceptional in childhood. There are, however, suicides committed by mere infants of five and even three years old. Durand-Fardel, in an aggregate of 25,760 suicides which happened in France in 1835–44, found one of a child of 5 years old, two of 9, two of 10, six of 12, seven of 13, and two of 14. And it appears that the disastrous influence of Paris favoured precocity in this fatal propensity, for among the 4,595, which were effected in 1834–43, Brierre de Boismont found 77 of children less than 14 years old. In the French statistics of the eight years 1866–68, 1870–72, and 1874–75, there are registered 240 suicides by children, of whom ninety-four were 15, sixty of 14, thirty-eight of 13, eleven of 12, sixteen of 11, six of 10, four of 9, three of 8, and [illegible]y eight of 7 years of age only. In ten years

in England and Wales (1865–74) there were 81 suicides at 10 to 15 years of age, of whom 45 were male and 36 female, which shows that extraordinary feminine precocity which makes the suicides of the two sexes at the tenderest age so nearly equal. In Prussia, within three years (1873–75) eight were effected between the ages of 5 and 10. Here also the influence of town life comes into play.

In fact, it is in the great centres that the number of suicides amongst the young rises so extraordinarily high. We have already spoken of Paris; but in London, Petersburg, and Vienna the case is the same. At London, in the quinquennial 1846–50 the proportion of those under 16 years of age was 6 males and 10 females per 1000; and in 1861–70 there were ten suicides of children scarcely 10 years old in the great metropolis.

At Petersburg, in 1858–67, out of 248 voluntary deaths 40 were by those under 20 years of age, and of these 15 who had not attained their fifteenth year: 6 per cent.! As long ago as the first quarter of the century Casper lamented over the increase of these cases in Berlin, which in fact gave only 1 from 1788 to 1797, 3 from 1798 to 1807, and 31 from 1812 to 1831. Vienna furnishes so high a proportion of suicides under 25 years of age as to reach 32 per cent. of the whole; in August alone in 1866 there were three suicides of boys under the age of puberty. At Hamburg in 1873–77 there were 40 suicides under 20 years of age out of a total of 568, that is to say, 7 per cent. At Chemnitz during the septennial 1870–76, 38 per cent. of all the suicides were committed under 30 years of age, and of these one was 11, and eleven from 15 to 20 years old. Lastly, the suicides of young men and young women amounted to 5 at Brussels in 1876–77; to 34 at New York in 1871–76, out of which five were from 10 to 15 years of age, and to 32 at Frankfurt, on-Main in the decennial

1867–76, of whom 4 were under the age of puberty. In all these cities the maximum proportion is between 20 and 40 years of age, especially in the female sex, whilst in the whole population this maximum (on the actual numbers) always occurs at a more advanced period of life, that is to say, above 40 or 50 years of age. Some other proofs of this may be seen in the following Table XXX. There the high proportion of young women is more than ever evident, but it is in the capital of Bohemia that it reaches an alarming height, and where six-tenths of all the female suicides are committed by young women who have not yet passed their thirtieth year.

TABLE XXX.—*Influence of Cities on Suicide at various Ages. Proportions per* 1,000 *of the Suicides of both Sexes.*

AGES	Paris 1834–43	London 1846–60	London 1861–70	Berlin 1852–54	New York 1871–76	Frankfurt-on-M. 1867–76	Geneva 1833–47 1862–65	Prague 1869–70 1874–76
MEN								
Number of cases known	3,125	815	1,909	168	655	263	169	171
Under 16 years	53·1	6	4·7	—	4·6	3·8	24	163·7
From 16 to 21 years		44	30·9	86	29·0	91·2		
„ 21 „ 30 „	216·3	153	232·6	261	184·7	220·5	207	292·4
„ 31 „ 40 „	217·9	216	223·7	140	204·0	193·9	193	163·8
„ 41 „ 50 „	209·3	224	232·9	198	227·5	215·7	183	157·9
„ 51 „ 60 „	160·0	193	176·5	198	184·7	165·4	154	105·3
„ 61 „ 70 „	99·2	115		83	65·7	76·0	160	
„ 71 „ 80 „	35·6	38	81·7	18	18·3	34·4	71	116·9
„ 80 and upwards	8·6	11	17·8	6	1·5		6	
WOMEN								
Number of cases known	1,341	390	760	36	206	52	35	61
Under 16 years	99·0	10	1·4	—	9·7	57·7	29	164·0
From 16 to 21 years		113	79·0	195	48·5	134·6		
„ 21 „ 30 „	255·1	246	296·5	250	257·3	230·8	172	426·2
„ 31 „ 40 „	189·4	200		139	291·3	192·3	143	180·4
„ 41 „ 50 „	179·7	187	238·1	222	174·7	57·7	171	114·8
„ 51 „ 60 „	142·4	141	198·7	139	121·4	134·6	171	80·3
„ 61 „ 70 „	101·4	64	107·9	55	63·1	153·9	200	
„ 71 „ 80 „	38·0	31	69·7	—	19·4	38·4	114	33·8
„ 80 and upwards	2·0	8	9·2	—	14·6		—	

It is perfectly well proved that children are as susceptible of painful and depressing emotions as adults; thus the

harm to them is the greater, both on account of the delicacy and greater sensitiveness of their nervous system, and their want of the faculty to weigh the consequences of their act. The education which is now given to children assists a premature developement in the new generation of the reflective faculties and of the passions; hence we need not be astonished if in the towns especially the suicides of young men and young women hardly on the threshold of puberty are constantly multiplying.

All the critical periods of life, puberty, menopausis, the time of complete mental developement, are most powerful influences to disturb the moral character of man. These periods, at which great modifications of the constitution and the brain occur, produce also different and variable phenomena; but it is certain that individual will undergoes these organic and physiological transformations unconsciously, since it is the very essence of the human personality which becomes modified. Each period of life is marked by special characteristics; thus Beard, dividing the psychical life into three epochs analogous to those of human civilization, found that the characteristics of the mind, and, above all, the inventive faculty, run in a curve parallel to that of the morphological developement of the brain. And the mysterious, although evident relations between the soul and the functional conditions of the reproductive organs, will suffice to show the reasons why the character, the affections, passions, the force of reason, imagination, the sorrows and hopes of youth differ from those of an adult, and how it happens that the parabola of life being completed, old people return to the instincts and wants of childhood. Under this subject of influence of sex the opposition existing between the tendency to [illegible] and the tendency towards suicide is worthy of note. Accepting all the researches in crime by Quetelet, Wappäus, and Despine, to Thompson, Nicholson, and Lombroso, the

inclination to crime shows itself in its greatest intensity towards the age of 23 or 24, and goes on from thence gradually diminishing up to extreme old age, contrary to what happens to the suicidal tendency. We might produce confirmation of this antagonism from the statistics of Italian convicts, of whom 45·7 per cent. are between 20 and 30 years of age, and from those of England and Austria, of whom only 42·5 per cent. are of the same age; but we will confine ourselves to bringing forward from Quetelet and Drobisch the comparison relating to suicides and criminals in France, both because it is the most homogeneous and numerous aggregate of facts, and because the exactitude and uniform source of the statistics, combined with the character of the legislation, give a greater certainty and importance to the results.

TABLE XXXI.—*Antagonism between Suicide and Crime. (According to Ages and Sex in France).*

AGES	Convicted 1826-44						Suicides 1835-44					
	Per million inhab.			Relative numbers per cent.			Per million inhab.			Relative numbers per cent.		
	M.	F	Cor. av.	M.	F	Cor. av.	M.	F.	Total av.	M.	F.	Total av.
Under 16 years . .	3·8	0·6	4·5	0·2	0·2	0·2	1·3	0·4	1·7	0·2	0·1	0·2
From 16 to 21 years .	237	36	277	14·0	10·6	13·5	28·6	15·5	44·1	3·6	5·7	4·1
„ 21 „ 25 „ .	274	59	338	31·0	32·7	31·3	64·5	22·5	87·0	8·0	8·3	8·1
„ 25 „ 30 „ .	250	52	307									
„ 30 „ 35 „ .	227	43	274	24·2	23·9	24·1	78·1	21·9	100·0	9·7	8·1	9·3
„ 35 „ 40 „ .	182	38	223									
„ 40 „ 45 „ .	146	32	181	15·2	17·5	15·6	102·8	32·2	135·0	12·8	11·9	12·6
„ 45 „ 50 „ .	111	27	140									
„ 50 „ 55 „ .	80	17	97	8·8	9·8	8·3	106·7	38·1	144·8	13·3	14·0	13·5
„ 55 „ 60 „ .	61	13	75									
„ 60 „ 65 „ .	50	11	62	5·2	5·0	5·2	126·0	45·3	171·3	15·9	16·7	15·9
„ 65 „ 70 „ .	38	6	45									
„ 70 „ 80 „ .	23	4	27	1·4	1·2	1·3	148·6	48·7	197·3	18·5	18·0	18·4
„ 80 and upwards	8	0·3	8 8	0·5	0·1	0·4	147·5	46·6	194·1	18·3	17·2	18·0
Totals. . .	1,691	339	2,059	100·0	100·0	100·0	804·1	271·2	1,075	100·0	100·0	100·0

In a period in which the tendency to suicide was greatest at above 70 years of age, among men as well as

women, crime on the other hand in France furnished the greatest intensity before the age of 25, so that in delineating the two curves of these tendencies there would be found an inverse parabolic developement.

Man easily gives way to the instigation to crime when his physical developement is nearly complete; when the passions, and particularly the more expansive passions, reign with their natural impetuosity; and when reason has not gained the maturity fit to direct him in the misfortunes of life. In that period in which the imagination has the supremacy over the other mental faculties, there is often an expenditure of the energy with which the constitution is endowed in the directions opened by the worst instincts and brutish desires. It is only slowly, and after having been long in contact with society, that man becomes more indulgent towards others and more severe towards himself.

§ 3. *Civil Status.*

The study of the social status ought to follow that of sex and age, with which it is intimately connected. The usual error has been repeated here also, of inferring the more or less favourable influence of celibacy and marriage from the absolute numbers of suicides without thinking of the numerical difference existing in a population between the unmarried and those who are or have been in the conjugal state. And, indeed, it is necessary to keep count of the great preponderance of the single under 20 years of age, to attain an exact proportional comparison. In a population of 24,000,000, like the English, scarcely 36 per thousand men are married before their twentieth year, whilst among women at that age already 151 per thousand are married. It seems, then, that the advice of Oettingen

to eliminate all the individuals under 20 years of age should not be followed, because by so doing almost *two-tenths* of the married would be excluded; at any rate where there is a tendency to early marriage as in England. It is better to limit the exclusion to all children and young people under 15 years of age, and then to proceed to the proportional calculation per million of the remaining individuals. But statistics containing information on this important element of social life are scarce, and the most complete in this direction, we are pleased to say, are the Italian, of which we shall here prefer to make use.

At all times it has been admitted that celibacy had a disadvantageous influence in comparison with marriage, for it is evident that marriage shows the most beneficial influence on man's vitality, and that which happens to mortality in general is repeated as to suicide, except that the effects, as might naturally be foreseen, are still sharper, particularly in widowhood. But before demonstrating this influence by the diverse inclinations of the unmarried, married, and widowed, let us hasten to show the constant regularity of the general returns of their suicides in particular years and countries. Our Table XXXII. contains in regard to this subject a comparison between various countries, and especially the separate returns of recent years for Italy, France, and Prussia. The numbers of the divorced are given only for some German countries; thus the Saxon statistics divide the divorced (*Geschiedene*) from those separated from bed and board (*getrennt Lebende*), which we, however, have joined in one list. In Italy and France they keep no reckoning of the separated, although it is known that they contribute largely to voluntary deaths.

In considering the proportional numbers per thousand suicides, calculated on the actual numbers, we find the

TABLE XXXII.—*Influence of the Civil Status on the Tendency to Suicide.*

(*Proportions per Cent. for Sexes and for Civil Status calculated on Absolute Numbers.*)

COUNTRIES AND PERIODS		Single		Married		Widowed		Divorced (and sep/td)		Unknown	
		M	F.	M.	F.	M.	F.	M.	F.	M.	F.
Prussia	1869–72	34·7	36·4	46·2	41·1	13·9	20·5	1·9	1·4	3·3	0·6
	1873	32·5	40·6	43·3	36·6	14·3	20·6	2·7	1·3	7·2	0·9
	1874	33·7	39·8	45·8	35·4	14·1	20·8	1·9	2·4	4·5	1·6
	1875	33·8	39·3	46·8	38·5	14·2	19·6	0·8	0·9	4·4	1·7
	1873–75	33·3	40·0	45·4	36·8	14·2	20·3	1·8	1·5	5·3	1·4
Saxony	1847–50	33·7	29·5	45·2	44·9	10·7	22·2	3·1	1·8	7·2	1·5
	1851–55	33·7	34·5	46·9	41·5	12·3	19·6	1·5	1·0	5·6	3·4
	1856–60	36·2	39·5	44·9	39·0	10·1	18·0	1·8	1·3	6·9	2·2
	1861–65	35·1	35·3	46·3	42·3	11·0	19·0	1·2	1·2	6·4	5·2
	1866–70	31·3	40·2	49·1	40·9	12·4	17·2	1·3	0·8	6·0	0·9
	1871–76	30·8	36·8	48·1	41·3	13·2	19·8	0·9	0·9	7·0	1·2
France	1863–66	36·3	25·9	48·6	51·4	15·1	22·7	—	—	?	?
	1867–71	35·8	26·2	47·2	48·7	15·8	24·4	—	—	1·2	0·7
	1872	34·0	24·8	47·0	48·9	15·0	25·0	—	—	4·0	0·7
	1873	35·6	25·7	45·2	49·5	14·7	23·0	—	—	4·5	1·8
	1874	36·6	27·2	46·4	49·5	13·9	22·4	—	—	3·0	0·8
	1875	32·1	28·5	50·4	48·3	14·8	22·6	—	—	2·7	0·6
	1876	34·7	26·6	45·1	49·3	15·9	22·3	—	—	4·3	1·8
Italy	1866	48·2	33·4	38·0	47·0	5·3	13·6	—	—	8·5	6·0
	1867	43·9	26·6	39·6	55·9	12·3	16·1	—	—	4·2	1·4
	1868	47·4	42·4	35·7	40·0	8·8	13·3	—	—	8·1	4·3
	1869	43·8	34·0	42·1	44·6	9·4	18·7	—	—	4·7	2·7
	1870	43·5	29·1	40·3	46·5	12·5	23·8	—	—	3·7	0·6
	1871	46·5	31·0	41·3	48·2	10·4	19·4	—	—	2·8	1·4
	1872	43·2	36·6	43·0	41·7	10·4	18·7	—	—	3·4	—
	1873	41·1	27·2	43·1	49·7	12·1	23·1	—	—	3·7	—
	1874	41·1	29·7	45·5	49·3	11·8	20·2	—	—	1·6	0·8
	1875	44·4	44·0	41·6	41·2	10·9	13·7	—	—	3·1	1·1
	1876	47·9	38·9	38·1	42·9	11·3	16·5	—	—	2·7	1·7
	1877	44·1	31·2	42·0	53·1	11·2	15·7	—	—	2·4	—
	1866–71	46·3	32·8	39·5	46·8	10·0	17·7	—	—	5·2	2·7
	1872–77	43·8	34·0	42·1	47·3	11·3	18·1	—	—	2·8	0·6

unmarried to predominate *numerically*, although only slightly over the married; then come the widowed, and in Saxony, the divorced and separated; but with respect to the two sexes, the bachelors are predominant among the men, while on the other hand, in some countries (Italy, France, and Saxony) the proportion is greater of the married women than of the marriageable. Another sexual difference is furnished by the condition of widow-

hood, since widows are proportionally higher in number than widowers, so that in Italy the former reach half the number of marriageable women, the latter scarcely the quarter of the number of bachelors. The number of the divorced and separated in Saxony, although here derived from the statistics of thirty years, do not seem to differ much in the two sexes. Remarkable, too remarkable indeed, is the return of individuals of unknown status, but probably it is increased, in Italy and France, by many separations, legal or otherwise, and not only by the uncertainty in which the official registrar finds himself in face of individuals who are joined together only by th religious bond. Among others cases of suicide, destitute of any clue, are many caused by drowning, and many committed by persons unknown. Naturally, the number of women of unknown social standing is very small, both on account of the sedentary lives of women, and because they do not need to hide their own social condition so often as men. The figures vary little from year to year, if the aggregate of the most recent statistical periods are taken into consideration; nevertheless, the contribution of each return is not always uniform. The most uniform place in the annual returns of suicide is filled by the widows, who constantly surpass the widowers.

But the influence of the social condition, together with sex, appears still more clearly in the relative percentage between men and women of each of the four categories. Arranging in one table only some relative dates of various countries, and in order to spare the reader's mind reducing the report to the simple figures only, we perceive that, whilst the general relation of the two sexes varies very little from about 20 females to 80 males among the single, it is smaller for the women of Italy, France, and Baden;

larger for those of Prussia; and among the married, on the contrary, larger for the former, smaller for the latter.

Relative Percentage between the Sexes in the Civil Status of Suicides.

	Single		Married		Widowed		Unknown	
ITALY	M.	F.	M.	F.	M.	F.	M.	F.
1866	86	14	77	23	61	39	85	15
1867	86	14	75	25	77	23	93	7
1868	81	19	77	23	70	30	88	12
1869	81	19	75	25	62	38	84	16
1870	84	16	76	24	65	35	96	4
1871	87	13	79	21	71	29	86	14
1872	82	18	78	22	68	32	100	—
1873	86	14	79	21	69	31	100	—
1874	81	19	74	26	57	43	86	14
1875	81	19	81	19	77	23	92	8
1876	86	14	82	18	78	22	99	1
1877	86	14	76	24	74	26	100	—
FRANCE								
1863-66	84	16	78	22	71	29	—	—
1867-71	84	16	79	21	72	28	89	11
1872-76	83	17	78	22	71	29	93	7
PRUSSIA					Wid. and divorced			
1869-72	80	20	82	18	75	25	96	4
1873-75	78	22	83	17	76	24	95	5
SAXONY								
1866-70	77	23	84	16	76	24	97	3
1871-76	78	22	83	17	74	26	96	4
BADEN					Widowers			
1864-68	87	13	87	13	73	27	97	3
1869-73	84	16	85	15	80	20	95	5

But the most marked divergence from the normal is the state of widowhood; in all countries the proportional relation between the widows and widowers exceeds that between the spinsters and the bachelors, between the married women and married men, so that evidently *widowhood brings the woman nearer to man than any other social condition;* a fact which might be conjectured even before it was confirmed by statistics, although according to the researches of Bertillon the mortality of widowers everywhere, but especially in France and Belgium, surpasses that of widows. It is a fact that wars, making a

great number of widows, always raise the annual number of their suicides. In making this careful search into the statistics immediately before or after the Franco-German war of 1870–71, we find a sudden leap in the suicides of the widows in France, Prussia, Baden, and Saxony from 1870–71 to 1872, greater than among the spinsters and wives.

But it is necessary to check the results of the actual figures by a reference to the population. A computation on the census must be made to find a uniform distribution of the annual geometrical augmentation of average on all classes of inhabitants, supposing the conditions of the population to remain unchanged from year to year, as in fact they do, when no great social disturbances take place, as wars, epidemics, or famines.

TABLE XXXIII.—*Influence of the Civil Status on the Tendency towards Suicide.*

(*Proportions per Million Inhabitants of each Civil Status.*)

COUNTRIES		Single		Married		Widowed		Divorced	
		M.	F.	M.	F.	M.	F.	M.	F.
Italy . .	1873–77	88·6	19·8	71·8	20·1	168·6	29·6	—	—
		56·4		45·9		72·8		—	—
France . .	1863–66	326·3	56·9	235·1	67·7	579·3	123·4	—	—
		184·2		151·7		279·5		—	—
,, . .	1865–66	343	57	237	59	641	127	—	—
,, . .	1863–68	273	59	245·7	62·5	628	133	—	—
		173		154·5		303		—	—
Saxony .	1847–58	?	?	481	120	1,242	240	3,102	312
Würtemberg .	1846–60	?	?	226	52	530	97	1,298	281
		330		230		360		320	
,, .	1873–75							(*comp. with the widowed*)	
Switzerland .	1876	410	56	449	71	817	76	—	—
Piedmont .	1872–76	113·0	20·7	76·1	18·5	153·2	24·4	—	—
Lombardy .	,,	107·6	22·7	89·1	18·7	218·3	37·1	—	—
Venetia . .	,,	91·9	24·5	113·0	34·4	195·6	51·8	—	—
Emilia . .	,,	158·5	51·1	135·3	47·4	348·8	72·3	—	—

From the number of single people, those under 16

years of age are excluded in the French returns, those under 20 from the Würtemberg returns, and those under 15 from the Swiss and Italian returns (Table XXXIII.).

Looking at the aggregate of the two sexes, the pernicious influence of widowhood, divorce, and celibacy, and the good effect of marriage, is ratified. In fact, if we take the position of the bachelors and widowers in conjunction with that of the married men, which is the smallest, and which we will make equal to 100, we shall then get:

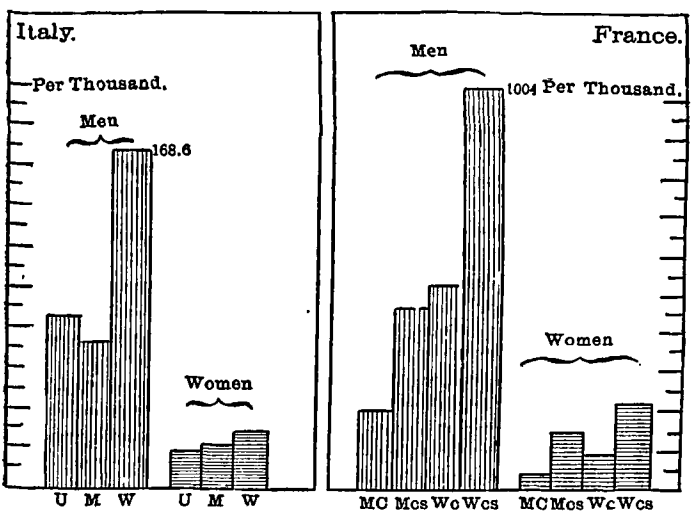
	Married	Single	Widowed	Divorced
In Italy	100	108	167	—
In France	100	112	196	—
In Würtemberg	100	143	156	139

But the differences of the sexes must be noted; whilst on men the hurtful influence of celibacy and widowhood is lasting, women, on the contrary, give in Italy, France, and Switzerland, fewer suicides in the single state, and more among the married and widows. In fact, in Italy the same number of men amongst whom, if they were married, there would be 100 suicides, would furnish if single 120 and 235 if widowers; whilst an equal number of spinsters, compared with 100 suicides of married women, would give only 90, whilst widows give 147. In France, if the loss by or probability of suicide amongst married men is represented by 100, that of the single becomes 111·4, and of the widowers 256; but reckoning the loss among married women as equal to 100, that of girls amounts only to 94, and among widows it rises to 213. Thus the unexpected result is reached, that widowhood increases the loss more among men than among women, and celibacy hurtful to the former is not so much so to the latter. The proportion of married women who inflict death upon themselves

deserves all the attention of psychology; it denotes that woman does not often find in matrimony the happiness of her youthful dreams.

On the other hand, the single have fewer motives which urge them to self-destruction, and neither should we forget another physical cause of suicide among the married,

FIG. 7.



Influence of the Civil Status (Italy) and of the Family (France) on the tendency to suicide.

U unmarried, *M* married, *W* widowed; *Mc* married with children. *Mcs* married childless, *Wc* widowed with children, *Wcs* widowed childless.

the frequent mental alienation during pregnancy and child-birth, against which the unmarried have only to set the shame of illegitimate child-bearing. It is, indeed, an exceptional fact that in Switzerland even the married men have more tendency, though only in a slight degree,

towards suicide than the unmarried. We do not fathom the reason of this, and our data belong to one year only.

The sexual differences in the divorced state are most important. Only during 1873–75 in Würtemberg the intensity of divorced was below that of the widowed and single; but in the same country during the much longer period of fifteen years, between 1846–60, and in Saxony, their probable loss by suicide appeared higher, to an extraordinary degree, than that by the other classes. Representing the loss of married men and women at 100, the following progressive numbers are found for widowhood and divorce:

	Men			Women		
	Married	Widowers	Divorced	Married	Widows	Divorced
In Saxony . 1848–57	100	253	644	100	200	260
In Würtemberg 1846–60	100	234	574	100	189	536

Divorce is then proportionally more harmful to man than to woman, particularly in Saxony; where the probable loss among the divorced men is *sixfold* that of the married, and more than *double* that of the widowers; among the divorced women, on the other hand, the loss is more by under a *fourth* of that among widows. But it is not so in Würtemberg, where, on the contrary, compared to widowhood, divorce becomes much more hurtful to woman.

Up to this point the civil status has been considered without regard to the age of the suicides; but, as Bertillon notices, it is useful to study the combination of that with the powerful influence exercised by each particular period of life, to each one of which very different moral and material conditions of the individual correspond in the single or married, among the widowed or divorced. On the other side, we find the readiness towards suicide in-

crease with years, but as on the whole the single average younger than the married, and these than the widowed, it is easy to understand how a part of the higher proportion offered by these last may be attributed to the influence of age. In fact, up to 15 years of age, the number of the unmarried already diminished by death begins to diminish still more by reason of marriage. Whilst the maximum of the unmarried is between 1 and 10 years of age, that of the married falls between 30 and 50 (variable in different countries), and lastly, that of the widowed is only beyond the age of 60. Whence it happens that in the most advanced period of life, the influence of age and that of widowhood combine together to increase the readiness for suicide of the widowed. With regard to the divorced, on the other hand, their maximum falling about the fifth decennial of life (in the German Empire), it may be supposed that their great suicidal tendency depends almost entirely on the influence of divorce, a very small part of it having regard to age.

Bertillon has studied the combination of age with the Registrar's returns upon the French data of 1863–68, and the following summing-up is the fruit of his investigation. The greater number of unmarried (that is to say, 58 per cent., exclusive of those under 15, who contribute only in the smallest degree to suicide) are between 15 and 20 years old, of married between 30 and 50, of widowed between 55 and 75; the first then have an average of 26·8 years, the second of 45·8, the third of 61 years. That being premised, and calculating on the numbers of the period 1863–68 (see Tables XXIX. and XXXIII.), the influence of age ought to have raised the average of the unmarried in France to **139** suicides *a year per million* of individuals, and about **250** of the married people; that is to say, that the probable loss by suicide, if it depended

only on age, would be much larger among married people than among single, in about the relation of 100 : 55·5. But exactly the reverse happens as the proportion of suicides is less among the married, being as 100 : 111·4. The influence of marriage as a preservative against suicide has, then, neutralized that of age by diminishing the probable loss of the married by more than one-half. It is less easy to estimate the influence of the state of widowhood by reason of the great increase of suicide among the old; the advanced age of widowers, however, is not the only cause of the phenomenon, since, if it were, their average would be between 406 and 511 per million; it reaches instead to 628, an evident sign that to the loss by age is joined that caused by widowhood.

The same laws repeat themselves for French women; the single, whose average age is 28·4, ought to sustain a loss of 42, but it amounts to 60; and the widows, who have an average of 60 years of age, instead of having the usual proportion of 116 for women at that age, go up to as many as 133 suicides per million, precisely because widowhood is, like celibacy, a powerful predisposer to suicide.

Applying this reasoning to Italian statistics, we are deprived, it is true, of information as to the average age of the three groups of individuals; but supposing it to be not very different from that of the French, we obtain a like result, except for widows. If the medium age of single men is put at 25 or 26, that ought to produce about 77 suicides per million, according to the proportions of age which we found for 1872–77; but it gives us an average of 86·6, about 10 more than the required numbers should be. As to the married people, their medium age put at 45·8 would produce a loss of 102 per million, with a relative proportion to that of the single = 135 : 100; in reality, however, their

loss is even below that of the single, namely, 93 : 100. The difference of 42 existing between the returns per cent., or of 31 between the theoretical average of 102 and the actual one of 71, represents the beneficial share exerted by the marriage tie on the inclination of the Italians towards suicide. Lastly, the widowers, in place of giving 140 per million, as their age would entail, furnish instead 148 suicides per million. Amongst women, the same method would show a slight disadvantage for the unmarried and widows (the medium age of widows is lower than that of widowers), and only a slight advantage for the married.

It may now be worth while to investigate whether the presence of children would be a sufficient check upon the inclination to suicide. Very few official publications contain this important datum; we will, however, quote the French, which divides the married and widowed with progeny from those without, and the Prussian, where those suicides are found separated who leave behind them relations needing their assistance. In France, the influence of a family over the inclination of the two sexes to commit suicide is as follows:

France, 1867–76	Men		Women	
	Actual numbers	Per cent.	Actual numbers	Per cent.
Married with issue . . .	13,022	67·6	3,221	61·0
„ without issue . .	6,261	32·4	2,061	39·0
Total of married . . .	19,283	100·0	5,282	100·0
Widowed with issue . . .	4,122	65·8	1,517	59·4
„ without issue . .	2,144	34·2	1,040	40·6
Total of widowed . . .	6,266	100·0	2,557	100·0

In Prussia, the suicides with relations in need of their help are thus divided, according to sex and civil status, remembering that the single are those above 15 years of age.

PRUSSIA, 1869–75	Men		Women	
	Actual numbers	Per cent.	Actual numbers	Per cent.
Unmarried without needy relations. .	5,261	94·9	1,384	91·4
„ with „ „ . .	286	5·1	131	8·6
Total of unmarried	5,547	100·0	1,515	100·0
Married without needy issue . . .	2,811	36·4	722	44·6
„ with „ „ . . .	4,929	63·6	899	55·4
Total of married	7,740	100·0	1,621	100·0
Widowed without children unprovided for	1,733	73·0	654	79·7
with „ „ „	639	27·0	188	22·3
Total of widowed	2,372	100·0	842	100·0
Divorced without children . . .	217	70·0	34	57·6
„ with „ . . .	93	30·0	25	42·4
Total of divorced	310	100·0	59	100·0

From these figures it will be seen that the presence of children is a stronger check for the *mother* than for the *father* in married life and widowhood, whilst it is the contrary in the state of divorce. This characteristic of the divorced confronted with the married women and widows must be owing to the frequent separation from the children, whose care and education are by law usually entrusted to the father. But the influence of a family is made still more evident by the actual numbers per million of individuals belonging to each state, as Bertillon junior has established (*Revue scientifique*, February 1879).

In our fig. 7 (at p. 233) the phenomenon is shown most clearly by France; the loss by suicide, which among the married with issue is 205 per million for the husbands and 45 for the wives, rises on the contrary among the childless marriages to 470 for the former and to 158 for the latter; the one doubled, and the other more than tripled in number. And with regard to widowhood, among men with children the probable loss is 526, and among women 104; but when

they are childless the number of suicides increases to 1004 among the widowers, to 238 among widows.

Let us recall the attention of the reader to the fact that the possession of children is a restraint upon the widows sufficient to overcome the harmful influence of widowhood, whilst the want of children raises the tendency in wives barren from whatever cause by one-third above the first class of widows. The abandonment, isolation, often misery, attendant upon widowhood, are continually overbalanced in woman by her sweetest and noblest affection, maternal love. Nor ought we to forget that many women find themselves happier in widowhood than they were in married life; so true is this, that they are much less eager to leave that condition by re-marriage than are widowers (Bertillon).

§ 4. *The Professions.*

The investigation of the influence of professions on human life and proclivities has much interest for the medical student, and professional hygiene forms the greater part of the daily medical code; not only in the department of internal and external pathology or racial, whether as concerns diseases bred by certain manufactures and arts, or on account of greater or less human longevity, but also because it affects the developement of the mind, the strength of the reason and its susceptibility of education, and the culture of the moral sentiments. We mean to say that also in the psychological field this branch of hygiene has struck vigorous root, and the proof of it is the more or less fortunate efforts to indicate to the legislator the tendency to crime in the different social ranks, to the alienist the more or less resisting power of some profes-

sions against madness, and especially against certain fixed types of it, lastly, to indicate to the sociologist the different inclination for suicide of particular professional classes. This last point has been investigated by many statisticians, from Casper, Petit, and Cazauvieilh, to Lisle, Friedreich, Kayser, Legoyt, and Wagner; but in truth the obstacles to arriving at any conclusion are so many that no available results have been obtained. Bearing in mind what uncertainty attaches to the professional statistics of a census, we shall not charge science with the errors based on such data. Only in ideal professional statistics, as Mayr says, could all the necessary and exact information which even now we demand be registered at a future day. Under actual circumstances it becomes a matter of course that the study of the influence of professions on the suicidal tendency falls far short of adequate accuracy; at the most it must be confined to determining the regularity of social life even under this aspect, and approximately the greater or less probable loss by suicide in the well-marked and less variable professional categories only.

Those who with the largest collection of data have studied this subject are, as usual, Wagner and Legoyt; as skilful statisticians they have attempted to determine the question *by the relation to the number of those belonging to each profession.* However, it is only within the last years that a less inaccurate and more uniform professional census has come into use; yet still leaving such differences between the various States as to render a comparison most arduous and even impossible. Hence it is wiser to study each country separately; because although we have found more than one recent census reduced to groups fit for comparison by Professor Bodio (*Censim.* 1871, vol. iii. *Popolaz. classif. per professioni, Introd.* 1876), yet was it impossible for us to profit by his labours, owing

to grave differences in the professional categories. This part of our work must then be accepted as a preliminary study on the question, an essay, and nothing more.

Let us note before everything the regularity with which the separate professional categories contribute each year to the aggregate of suicides. We might reproduce here long columns of figures, but owing to restricted space, and also to create a desire in the reader to seek himself for the proofs in the official tables, we limit ourselves to some returns as to the professions of suicides in Prussia during the four years 1869–72. It is here also necessary to keep the sexes distinct, because there is no analogy between the kind and the numerical relations of the professions entered by men, and those in which women can occupy themselves. The following figures refer only to known cases, as do almost all the returns on suicide in Prussia.

The uniform annual distribution of suicides in the different professions is a simple effect of that same uniformity of social life through which a population cannot suddenly change its professional conditions, hampered as it is in its choice between limits imposed upon it by the nature, the topography, and the special products of the country which it inhabits. Almost always the uniformity of voluntary deaths shows not only the existence of these material influences, so to speak, but expresses also the different part taken by each category or class of individuals in the moral progress (psychological) of society of which it makes a part. It is presumable that the contribution, in this respect, remains uniform in the great mass of individuals, and we are confirmed in this opinion by each one of the professional categories having its own specificness in crime, madness, and even in suicide. This last may be investigated in two ways; either by confronting the different numerical position which belongs to all the several pro-

TABLE XXXIV.—*Influence of the Professions on the Tendency to Suicide.*

Professions of the Suicides in Prussia (numbers per thousand). Uniformity of the Annual Returns.

PROFESSIONS DIVIDED INTO CATEGORIES	Men					Women				
	1869	1870	1871	1872	1869–72	1869	1870	1871	1872	1869–72
Agriculture, pastoral	211·1	207·8	210·7	176·0	201·6	233·7	213·0	226·0	194·2	216·7
Forestry	5·4	5·1	4·6	3·0	4·6	3·2	3·2	3·7	3·4	3·4
Pisciculture	0·8	1·7	0·5	1·3	1·1	—	—	1·9	—	0·4
Mines and quarries	8·2	5·1	8·2	8·0	7·4	4·3	4·7	—	1·7	2·9
Constructions	74·3	72·4	77·4	61·0	71·2	30·8	30·2	37·0	32·4	32·5
Industrial productions	216·3	210·8	206·6	229·0	215·8	151·0	160·6	159·3	165·3	159·0
Commerce and Insurance	55·0	63·8	60·0	55·4	57·4	17·8	41·3	44·5	34·1	34·1
Railways (working and construction)	10·1	10·7	14·7	11·4	11·6	6·5	8·0	11·0	5·1	7·6
Posts and telegraphs	0·4	3·9	2·7	5·5	4·0	—	3·2	—	1·7	1·3
Marine	8·6	3·9	7·8	8·9	7·3	4·3	6·4	7·3	1·7	5·1
Despatch in all its branches	9·3	8·6	11·4	9·3	9·6	1·6	—	1·9	3·4	1·7
Landlords and innkeepers	15·6	13·3	12·4	16·5	14·5	11·4	15·9	16·7	13·6	14·3
Day workmen of undetermined professions	152·9	176·5	53·9	160·8	160·6	152·6	154·2	126·0	158·4	148·4
Domestic servants	4·0	4·7	4·6	4·2	4·3	13·0	4·7	7·3	6·8	8·0
Army and navy	67·0	46·3	64·6	85·0	66·0	—	3·2	—	—	0·9
Constabulary, police	4·7	2·6	2·3	2·1	3·0	—	—	—	—	—
All the other professions (liberal)	23·3	29·1	34·8	22·4	27·2	43·8	31·8	31·5	20·4	32·0
Capitalists, proprietors	19·8	25·3	16·9	17·4	20·0	29·1	36·6	46·3	23·8	33·7
Pensioners, life annuitants	28·4	30·9	28·9	30·6	30·0	39·0	62·0	29·5	39·2	43·0
Mendicants	10·1	15·4	6·4	11·4	10·9	11·4	19·1	20·4	15·4	16·4
Persons without professions	40·5	36·0	36·2	42·3	38·6	216·0	187·6	205·6	250·4	214·6
Provided for in public establishments	34·2	26·1	34·4	38·5	33·3	29·2	14·3	24·1	29·0	24·0
Total	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000

fessions in the population in general, and in the returns of suicide; or better still, by calculating carefully the annual average of violent deaths per million of those engaged in each profession. The second method would give results more approaching exactness if the professional census did not leave so much to be desired.

In the following table (XXXV.) is displayed a specimen of an enquiry into professional influence, computed on the Italian statistics for the eleven years 1866–76. The categories of professions were extracted from the census of 1871, as is shown in the first part of the table.

It does not appear necessary to us to explain the constitution of these seventeen professional groups; we will only say that the 'dependents,' comprehended also in the census children under 15 years of age, but in the calculation of the proportions per million (third part of the Table) they were excepted, as we already gave notice in the section on age.

It was, indeed, presumable that those least disposed to suicide would be those the farthest removed from the difficulties of life, that is to say, those living at the charge of others, or without any profession (Cat. XVII.); their average is, in fact, much below that of the population in general, and more so among men than among women. Equally low is the probability of the classes addicted to agriculture, pastoral life, forestry (Cat. I.), although they appear to be raised above the normal in the female sex. Among country people, however, pellagra contributes to raise the numbers in Italy. The category also of the labouring people, for the most part composed of individuals not devoted to fixed occupations (porters, journeymen, labourers, ploughmen, shoeblacks, scavengers, grave-diggers, workmen without a trade, &c.), furnish few suicides; among the men the average of these is under

TABLE XXXV.—*Influence of the Professions on the Tendency to Suicide. A Specimen of an Enquiry into that Influence in Italy* (1866–76).

PROFESSIONAL CATEGORIES	A Proportions per 1,000 of the population			B Proportions per 1,000 of suicides (1866–76)			C Per million individuals belonging to each profession		
	M.	F.	A.	M.	F.	A.	M.	F.	A.
I. Production of raw materials	423·2	227·8	321·0	228·3	386·1	260·3	26·7	21·6	25·0
II. Industrial productions	143·2	101·9	122·7	232·5	184·5	222·7	80·4	23·0	56·7
III. Commerce	12·4	2·4	7·5	69·6	16·6	58·9	277·0	87·0	246·5
IV. Transport	19·5	0·6	10·1	38·3	3·2	31·2	152·6	(433)	154·7
V. Property, moveable and immoveable	30·6	26·5	28·5	106·7	92·5	103·8	172·8	44·5	113·5
VI. Domestic Servants	12·5	22·3	17·7	29·6	73·8	38·5	116·7	41·1	68·1
VII. Defenders of the country	10·8	—	5·4	88·0	—	70·1	**404·1**	—	404·1
VIII. Public administration	9·9	0·2	5·2	65·0	—	51·8	324·3	—	324·3
IX. Religion	8·8	2·2	5·6	9·5	1·07	7·8	53·5	6·0	45·3
X. Jurisprudence (1868–76)	1·9	—	1·0	6·9	—	5·5	217·8	—	217·8
XI. Medical Professions „	3·2	0·9	2·0	10·5	1·61	8·9	200·9	28·0	103·3
XII. Instruction, education „	1·8	2·1	2·0	18·3	3·21	15·2	355·3	19·5	175·3
XIII. Fine arts „	2·8	0·2	1·5	4·2	1·61	3·7	90·9	99·8	94·0
XIV. Letters and science „	1·0	0·02	0·5	9·9	—	7·9	(618·3)	—	618·3
XV. Vagrant professions	1·4	0·3	0·9	7·4	5·9	7·0	260·7	**252·7**	259·3
XVI. *Industrial supernumeraries*	34·5	13·9	24·2	25·2	17·6	23·7	36·1	16·1	30·9
XVII. Dependents, and without fixed profession	282·3	597·9	439·2	15·9	172·7	47·8	21·6	6·5	8·0
Unknown professions				34·0	39·6	35·2	—	—	—
Total	1000·0	1000·0	1000·0	1069·0	1000·0	1000·0	—	—	—

the general average, and among the women only slightly above it, but all the professions and trades which, by habits and muscular or psychical occupation, bring women near to man, tend to raise, and sometimes in an extraordinary degree, their inclination to suicide.

The opinion which regards suicide as more frequent among agriculturists and proletariats of the country than among workmen and tradespeople is erroneous; and, indeed, the influences of instruction, of urban life, of economical crises are much more felt by the labourers in the great centres. In general, however, the propensity to suicide among the industrial artizans (Cat. II.) is little above the common average, and the disadvantage is somewhat less among men. It is said that elsewhere the working classes pay a heavy tribute to voluntary death, but we must not be surprised if Italian statistics do not support this fact. Italy is not an industrial country, and those large masses of workmen which are found in France, England, and Central Europe, whose depravity, corruption, and misery account for the high numbers of mad people, delinquents, and suicides, do not there exist. But if in the aggregate the workmen and artizans show an ordinary tendency, there are nevertheless trades which possess the mournful privilege of increasing it. We wished to enquire into the proofs of this for Italy also, and the average proportion per million of individuals for each of the principal industrial groups during the six years 1872–77 is as follows. The computation is made on the census of December 31, 1871.

Intensity of Suicide in the Working Classes in Italy (1872–77).

Groups of Trades and Industries	Number of suicides			Per million individuals		
	M.	F.	Total	M.	F.	Total
1. Tissues	77	81	158	87·1	16·2	26·9
2. Leather	9	—	9	87·5	0	—
3. Clothing	235	82	317	92·0	36·6	66·1
4. Toilet necessaries	47	1	48	206·8	(78)	200·7
5. Food	250	33	283	102·7	44·3	89·0
6. Builders and owners of houses and streets	210	1	211	68·6	(50)	68·0
7. Furniture	43	—	43	121·3	0	—
8. House utensils	21	—	21	76·7	0	—
9. Transport, saddlery, &c.	14	—	14	10·4	0	—
10. Fabrication of arms and ammunition	11	—	11	237·5	0	—
11. Metal industries	69	—	69	75·5	0	—
12. Machinery and different instruments	17	—	17	77·2	0	—
13. Scientific and musical instruments	10	—	10	281·9	0	—
14. Paper	7	—	7	70·7	0	—
15. Printing, lithographing, &c.	40	—	40	227·9	0	—
16. Chemical products	2	1	3	53·1	(103·2)	63·4
17. Objects of luxury	46	0	46	333·3	0	—
18. Lighting	4	0	4	173·1	0	—

One chief result which surprises is this; the largest averages are returned by those industries which correspond to the least urgent needs of life, and these are groups 17, 13, 10, 15, and 4. The largest is that of group 17, which includes workers in objects of luxury, goldsmiths, jewellers, ironware, and makers of objects in alabaster, pietre dure, jet, toys, &c. This industry is more subject than others to general economic changes, because every unfortunate phase in the public wealth lowers the demand for, and consequently the value of their products. On the other hand, the intensity is less in the industries of group 1 (weavers, spinners, cloth merchants, dyers and spinners of wool, silk, cotton and hemp manufacturers, &c.); of group 6 (builders, stone-cutters, paviors, plasterers, street labourers, white-washers, and chimney-sweepers); of group 3 (tailors, hatters, seamstresses, shoemakers, glovers, washerwomen, ironers, &c.), although somewhat above the average, especially among women; of groups 8, 11, 12, and 14 (makers and mer-

chants of glass, earthenware, combs, sieves, brushes, pipes; founders, iron-workers, coppersmiths, tinkers, tin workers, paper, pasteboard, and ink makers, bookbinders, booksellers, stationers). The numbers increase in group 5 (millers, bakers, pastry-cooks, druggists, drysalters, dairymen, butchers, cattle merchants, poulterers, fishmongers, greengrocers, and fruiterers, wine merchants, cellar keepers, beersellers, spirit merchants, cooks, coffeehouse keepers, innkeepers, taverners, manufacturers and sellers of salt and tobacco); in group 7 (ebonists, turners, varnishers, mattress-makers, upholsterers, makers and sellers of furniture, frames, chairs, &c.), and lastly, in group 9 (makers of carriages and carts, saddlers, and farriers). Some averages for women are not worth attention, because they are drawn from too few numbers; nevertheless, we find the weavers give the smallest number of suicides, and, on the contrary, those who are skilled in food industries give the greatest.[1]

One class of persons which gives very few suicides consists of those devoted to religion, especially among women (nuns, convent maids, and lay sisters); and here the religious sentiment has less influence than retirement and removal from the disappointments and passions of the laity.

The greater probable loss by suicide in the Italian population affects the remaining professions. Confronting the proportional contribution which they pay to this kind of death (letter B, Table XXXV.), and the part which concerns them among the population (letter A), the greatest calamity is found in the so-called ruling classes, and, above

[1] We give in a note some approximate figures on the million, calculated by Wagner for the French industries:—Millers 97, bakers 116, butchers 164, tailors 191, shoemakers 109, workers in textile industries 150 men, and 26 women; workers in metal industries 260; tanners and saddlers 400 (?)

all, in the liberal professions and trades. First of all are the literary, scientific, journalists, engineers, geometricians, all those in short who make the greatest use of their brain power.

Next come the military, of whose very high inclination towards suicide we shall speak in the following section, and then the true professionals, tradespeople, and all those reckoned in the 'vagrant professions.' Elsewhere some of the highest averages have been found in the category of domestic servants (Wagner), but the divergence may depend upon the different extent given to the category of domestic service; for example, in Prussia, besides the menials and servants, the workmen who cannot be classified elsewhere are placed there, but who ought to be reckoned among the agricultural day labourers. It, nevertheless, is the case that in Italy, at least, domestic service has a moderate tendency to suicide, although above the normal in both sexes, and particularly in the female.

The numbers are very serious among professionals, and especially amongst professors, masters, assistants, teachers in institutes, and tutors; and amongst those employed in public and private offices, in the custom house, tax-gatherers in municipal offices, jails and places of public security, ushers and attendants. This fact gives much cause for reflection to those who are not ignorant of the unhappy and now proverbial condition of these well-deserving classes, and particularly of teachers in Italy. This drawback, to speak the truth, does not follow us in the examination of the returns of women; schoolmistresses, teachers in institutions, governesses, have but little inclination towards voluntary death, which circumstance may be a conclusive argument for those who in the reform of education would desire to give preference to women in the primary schools.

As to the commercial classes, the financial crises of our times, the increased bad faith and the desire of immoderate gains, explain the large tribute paid by these classes to suicide; and it is not only the small dealers who swell this tribute, but the higher commercial classes also—bankers, merchants, and traders.

With respect to jurisprudence and the healing arts, their average is still higher in Italy, proportionally speaking, than in France and Prussia. The two categories differ little, but the average is somewhat less high among those who follow the medical professions; but whilst in jurisprudence beside advocates, notaries, and procurators, only the ushers (1,193 in 25,986) are counted, in the other category, beside physicians and surgeons are placed chemists, phlebotomists, overseers of infirmaries, and veterinaries, without which addition it is presumable, from the known disposition of doctors to become mad (Verga), that the average would be higher. Certain it is that in the upper classes of society the act of suicide spreads daily, owing to the direct ratio it has with the increased over use of the brain power. And it is natural that those who enjoy the greatest advantages of the psychical evolution of our times should also have to suffer the chief disadvantages from it.[1]

We will give briefly some of the most important results of the statistics of other countries.

The French statistics of suicides give the professions arranged in a different method from the Italian. In fact, up to 1868 many industries and professions (especially

[1] Here are some averages for the cultivated classes in France (Wagner): 185 officials per million; schoolmasters, literary men, students, artists, 157; advocates and physicians, 101; proprietors and capitalists, 182, regard being had, let it be understood, to the individuals of the whole family.

operative) were specified, but now the lists are reduced to only nine, of which here follow the number and proportion per thousand in the decennial 1866–75:

France, 1866–75	Number of suicides		Per thousand.	
	M.	F.	M.	F.
I. Husbandmen and shepherds	15,133	4,513	367·2	419·9
II. Workers in wood, leather, metal wire, stones, glass, &c.	8,054	417	195·4	38·7
III. Bakers, pastrycooks, butchers, millers, pork-butchers	1,011	90	24·5	8·4
IV. Hatters, wig-makers, tailors, upholsterers, laundresses, &c.	1,920	900	46·6	83·7
V. Merchants, commercial travellers, agents	1,688	244	40·9	22·7
VI. Commissioners, porters, carriers, sailors, boatmen, &c.	924	7	22·4	0·6
VII. Hotel-keepers, inn-keepers, spirit merchants	684	123	16·6	11·5
VIII. Domestic servants	1,191	722	28·9	67·3
IX. Liberal professions, officials, students, military, priests, proprietors, &c.	7,463	1,007	181·1	93·8
X. Rag-dealers, beggars, prostitutes, those without professions, and professions unknown	3,148	2,723	76·3	253·4

According to Legoyt (1856–60) the middle classes and outcasts furnish the most suicides in France (**596** per million), almost three times as many as given by the liberal professions (218), about five times as many as the industrial (128), and sixfold the number of tillers of the soil (90). In the last period of returns, 1861–66, the proportions would have been on the same scale, according to Block, since on the million of inhabitants of each category we find:

	M.	F.	Average	M. : 100	F. :: 378
Agricultural professions	131	34	82	—	—
Industrial and commercial	196	35	117	—	586
Liberal and official	389	43	214	—	890
Without professions	695	543	610	—	102

The census for sex being wanting, we have attempted to make a calculation upon the table of the official publication previously given. During the quinquennial 1872–76 there would have been, according to this approximate

calculation, the following proportions per million for the primary professional categories:—Production of raw materials, 110·6; Industry, 158·9; Commerce and transport, 98·0; Domestic service, 82·9; Liberal professions, 510·0; varying employments, without profession or dependent, 28·3. From which it appears that in France also the unhappy pre-eminence belongs to all the cultivated classes.

In Switzerland, on the contrary, it concerns domestic servants; the following are the official returns for 1876:

SWITZERLAND, 1876	Actual numbers		Per thousand individuals	
	M.	F.	M.	F.
Production of raw material	125	12	304	73
Industrial productions	178	10	577	52
Commerce	33	2	664	89
Transport	33	—	1,514	—
Liberal professions, science, arts	20	—	558	—
Servants, day labourers, &c.	41	9	1,981	92
Without, or unknown professions	44	33	—	—

As for Prussia, notwithstanding that the statistics give the most ample and precise information on the professions of the suicides, we were not able, owing to the want of a census, to arrive at any exact result. In the actual figures, those depending on industries preponderate (269·6 per thousand), the agriculturists (204·4), persons with varying employment (174·0); and a long way behind comes commerce (55·6), transport (45·3), the military (44·2), the liberal professions (41·4), and lastly come servants (5·2), whilst in the absolute proportions those engaged in professions and commerce appear to exceed all the other classes.

In Saxony, of which we possess the actual data for thirty years uninterruptedly (1847–76), the regular contribution made by each of the professional categories is

wonderful, as the following proportions per thousand from quinquennial to quinquennial will truly show:

Kingdom of Saxony		1847–51	1852–56	1857–61	1862–66	1867–71	1872–76
Husbandmen, peasants, workmen, commercial men, &c.	M.	742·0	719·5	745·6	749·2	736·3	754·8
	W.	506·0	459·5	503·4	458·9	512·8	500·0
Domestic servants	M.	60·1	58·2	49·1	44·9	54·8	47·1
	W.	192·7	231·7	199·9	212·4	214·2	215·6
Officials and underlings	M.	34·5	37·3	34·3	34·8	31·8	37·7
	W.	19·3	28·2	12·1	26·4	22·6	29·1
Masters and artists	M.	20·2	14·1	14·3	14·1	15·8	16·4
	W.	12·0	9·2	15·6	21·7	9·0	9·3
Military and camp followers	M.	37·2	50·1	47·1	39·6	41·1	28·1
	W.	2·4	—	1·7	—	—	1·3
Without profession and paupers	M.	63·5	83·5	61·8	65·6	67·1	63·4
	W.	250·6	239·2	222·2	181·4	114·6	171·9
Unknown professions	M.	41·9	37·3	45·8	52·3	53·1	52·5
	W.	17·0	32·0	45·1	99·2	126·7	72·8
Total . M. and W.		1000	1000	1000	1000	1000	1000

But we know almost nothing as to the absolute intensity. Judging by the different proportions of the professions, it would appear that whilst the working and country classes are 50 per cent. of the population, there are instead 47 per hundred among the male suicides and 27 among women; the industrial and commercial classes about 36 per cent. of the former and 26 and 20 per cent. of women. Domestic service, on the other hand, gives 0·69 among men and 4·42 among the women of the population, but among the suicides the numbers are 4·71 and even up to 19·31 respectively. In fact, Wagner nevertheless says that the servants exceed by **2,170** per million (**486** among women); then come afterwards the military with 640. Of the industries the average would be 310 among the men and 61 among women; among the workmen 300 and 49 respectively; in the cultivated classes and liberal professions 385 and 77; but amongst the officials they mount to **540**; very high, however, would be the average of individuals without professions (790 men and 448 women); but such figures, as also those already returned by Legoyt and Block

for the French suicides, appear to exist because all the unknown individuals who are found dead by suicide are thus classed.

In Würtemberg the statistics of the three years 1873–75 give us important data; besides the proportion for each category of professions a calculation is made as to what would be the result if all the dependents, that is to say, the members of the family of each worker (*Haushaltungs-Angehörige*), were deducted.

WÜRTEMBERG	Total population per category	Unproductive element (the family)	Per cent. of the dependents	Suicides per million individuals	
				On the whole category	On workers only
			Per cent.		
Agriculture	611,000	386,000	63	190	510
Industrial	724,000	427,000	59	160	380
Commerce and traffic . .	154,000	86,000	54	230	510
Service	132,000	80,000	61	110	270
Army	12,000	1,000	8	660	730
Officials, liberal professions .	103,000	62,000	60	140	340
Without professions . .	83,000	33,000	40	40	60
Total . . .	1,819,000	1,075,000	59	170	410

The predominance of the military is here evident, then the commercial class, and (an exceptional case) the agriculturists. The liberal professions and domestic servants will be found among the lowest, but little above those individuals without a settled profession.

In Denmark also the latter category gives few suicides (Wagner), whilst as usual the tendency among the military and domestic servants is the highest. In Sweden and Bavaria, on the contrary, the governing classes again take the wretched lead; in Spain the middle-classes and labourers among the men, sempstresses and artists among women, take the lead, whilst, according to the actual numbers, the contributions of the professionals, military, and servants would be less; but the data are far from approximate.

It would be a matter of high interest to investigate the influence of urban life joined with the professions, but no statistics, except the Danish, which have already been drawn upon with little advantage by David, give us opportunity for such study. According to the meagre and insufficient signification of the absolute numbers of Denmark (1845–56), suicide increases in the towns particularly among tradespeople, soldiers, professionals, capitalists, vagabonds, and the suspected (*bedenkliche classen*), and, on the other hand, it decreases among agricultural labourers, servants, and children. We notice, however, that the Danish statistics place among the domestic servants all the helpers in field work, the boys and labourers at a fixed wage who, in other places, are classed together with the country-people. The heaviest loss in town life is seen among the tradespeople, who count 8 per thousand of the suicides in the country, 56 in the towns in the aggregate, and 72 in Copenhagen, and among the capitalists and pensioners, whose average per thousand of the total is respectively 4, 7, 29.

With respect to the large towns, in Paris the highest share would be taken by the domestic servants (servants, coachmen, porters, cooks); by the military, professionals, especially the officials, the prostitutes, and individuals without fixed professions. In the working classes, the strongest tendency is found among the tailors, seamstresses, and dress-makers; then among laundresses; nor is the average less high among traders in general, and hotel-keepers in particular. The smaller averages are given by proprietors, porters, bakers, pastrycooks, and gardeners (De Boismont). Let it be noticed, then, that the high proportion of suicides in the great centres, which are the abode preferred by the upper classes and the military, inclines us

to assume what might be the effect of town life, joined with culture and professions, on moral tendencies.

§ 5. *Social Condition.*

The influence of the social condition arises partly from that already spoken of with regard to professions, only the exclusive information with regard to them will not explain the precise position of the individuals within the professional group which they belong to, nor show what is the part taken by each in the collective activities, as director or simple actor, producer or consumer, master or auxiliary, or merely a member of the family of the professional. Such an investigation, whose social and psychological importance ought to escape nobody, we have no means of making from the statistics, except from those of Prussia, and as far as regards the economical condition also from those of Bavaria. In Bavaria, indeed, the suicides of persons in good or bad circumstances are distinguished, but from the moment when the corresponding conditions of the population are unknown to us, the returns become useless. Seeing, however, that from 1844 to 1867 the proportional number of the poor and the well-to-do in the Bavarian statistics remained constant, compared also with a uniform number of individuals of unknown fortune, we should be induced to acknowledge here also another phase of the really wonderful regularity of social phenomena.

Of greater comparative interest is the difference shown in the Prussian statistics of the social condition of suicides. Setting aside the question whether it is the best, it is certain that the data have a clear signification, especially those which refer to individuals who are dependent upon others. We give a summing-up for the period 1869–75.

It might be foreseen that the dependents of each pro-

fessional category would be most numerous amongst women, especially in the social upper classes (1), and in the industrial (3). Amongst the men, then, the suicides of individuals dependent on others, exclusive of the last category in which are found prisoners and paupers, are an insignificant part of the whole, which is as much as to say that it is fathers of families, heads of houses, those who receive wages, who have to struggle against the difficulties of life, who most easily leave it of their own accord.

Social Condition (Prussia 1869-75)	Actual numbers		Proportion per cent.	
	M.	F.	M.	F.
1. Living by the produce of wealth, professions, industry, &c.	4,700	498	278·6	120·8
Persons dependent on them	174	848	10·3	205·6
2. The governing class, administrative, inspectors, &c.	677	24	40·1	5·8
Persons dependent on them	20	102	1·2	24·7
3. All other industrial employments except servants	8,576	974	508·2	234·1
Persons dependent on them	51	398	3·6	96·4
4. Servants of all kinds	354	657	20·9	159·5
Persons dependent on them	1	15	0·06	3·6
5. Public officials	188	—	11·2	—
Persons dependent on them	7	19	0·4	4·6
6. Military and naval	997	—	59·1	—
Persons depending on them	—	2	—	0·4
7. All other individuals with ill-defined social condition	1,131	588	66·4	142·5
Total	16,876	4,125	1000·0	1000·0

Two social conditions are deserving of separate study; these are the military and prisoners, amongst whom, notwithstanding so many material and psychological differences, there exists the similarity of restraint exercised by discipline on individual will. It has already been seen in almost all the statistics, that the heaviest tribute to suicide is paid by the military; in Italy, whilst on the total of the population they constitute 5 per 1000, the suicides amount to 70 per 1000, that is to say, to a ratio fourteen times larger. Military life has the misfortune of increasing the loss of active and vigorous elements by means of unhappy

sacrifice to suicide. Whether that is owing to distance from home and disgust for military life, or to the severity of discipline, this is not the place to discuss; but in the meantime, wherever the psychological conditions of the army are studied there the heaviest, and we may even say, an exceptional loss may be perceived. And in the comparison which may be made between the soldiers and sailors of different countries, there is such a similarity of data that a still greater value must be attributed to the psychological interpretation of the numbers. The military service is, in fact, everywhere, except in England, regulated by the same rules of conscription, and of the obligation of the citizens, and everywhere the social and material condition of soldiers is equalised, either by custom and rule, or, which is more important, by disciplinary orders.

According to Wagner, the mortality by suicide amongst the military would go step by step with that of servants, but to us it appears, studying the returns carefully, that facts do not bear this out. One thing which should be remembered is, that the general mortality of soldiers is above that of civilians, who, at a corresponding age, are in the military service, notwithstanding that the physical constitution of the army by means of a careful selection of the strongest and most healthy ought to be guaranteed beyond the rest of the population against the probable loss by death (Oesterlen, Schimmer, Meynne).

The figures of mortality by suicide are quite in accord with the general returns, especially in the armies of the centre and north of Europe. In 1868 the following comparative statistics were published ('Gaz. de Voss,' and 'Union Médicale,' July 22): In the North of Germany there was 1 suicide out of 2,238 men; in Denmark, 1 in

3,900; in Saxony, 1 in 5000; Baden, Norway, and Prussia had each 1 in 9,000; Würtemberg 1 in 9,748; France 1 in 10,000; Sweden and Bavaria 1 in about 15,000, and Belgium 1 in 17,800. Nor is this contradicted in studying other statistical periods. In Denmark alone, the frequency amongst civilians exceeds that among the military, but the difference is so small (388 and 382 respectively in 1845–56) that Wagner justly excludes them, the more so because the officers are there distinguished from the ranks. In Sweden, on the contrary, in 1851–55, against 118 suicides of civilians, there were **450** military, in the ratio that is of 100 : 423. Amongst the soldiers of the kingdom of Saxony, in 1847–58 the mortality through suicide was **640** per million, whereas among civilians it was scarcely 369; thus on 100 suicides of the latter, there were 177 of the former. Under similar conditions Würtemberg gives us 170 among the men of the population, **320** belonging to the army, that is as 100 : 192 (Schimmer).

In France attention has been paid to the suicides of the army, which have become much more frequent during the last twenty years. In the period 1862–67, the extreme number was **510** per million of the forces, when it was 194 in the rest of the masculine population, and in Paris, the centre and fomenter of the suicidal tendency over a third of France, it rose to only 400. But allowing for the co-efficient of age, it is found that against the intensity of men between 20 and 30 years of age of that period (134 per million) compared to 100, that of the military would have been equal to 373. It appears, then, that the probable loss by suicide augments regularly in direct ratio with the time passed under arms, so that it is three times as great among soldiers who have been in the

service fourteen years (**910** per million), as among men who have served under three years in the military life (300). It must be added that the French officers show for this kind of death an aptitude twice as great as that of the privates and non-commissioned officers.

In Prussia, from 1849 there was a difference of from 150 to **419** per million (100 : 293) between civilians and the military, nor has it fallen since. In the three years 1867–69 those who died by suicide were 0·6 per 1000 of the forces and 0·62 in 1872. Such returns confronted with the **600** and **620** per million is much above the average 394 of the male population, between 20 and 30 years of age. But it is in Austria-Hungary and Belgium that the loss in military life reaches its maximum. Already, in 1851–57, against 82 civilians the Austrian soldiers gave **444**, with the enormous difference of 100 : 643, but in later years the mania for suicide appears to have reached a monstrous standard, since in the five years 1869–73 we find the mortality at 0·85, 0·97, 0·82, 0·88, 0·81 per 1000 of the forces, or the average of **866** per million against only 122 of the civil population. But we have already stated how terrible is the increase of these deaths in Austria. With regard to Belgium, in 1868–69 the suicides among the troops were 0·450 per thousand, whilst they were scarcely 0·068 in the population (662 : 100).

Mr. W. H. Millar gives us valuable information on the English army. From 1862 to 1871 the mortality by suicide was 0·379 per 1000 of the forces, and comparing it with that of men between 20 and 45 years of age, which during that period was 0·107, we find it of more than *triple* intensity. This intensity, moreover, augmented as time advanced; from 1862 to 1871 it grew from 278 per

million to **400** (in the first quinquennial an average of 315, in the second 443), and even reached **569** in 1869.[1]

The tendency, then, increases with the sending away the troops from Europe, so that in the kingdom (*at home*) the number is 339 per million, but in the English possessions in India it rises to 468. We may suppose that here nostalgia and the fatal influence of the climate play a large part. With regard to the diversity according to the arms, the unfortunate pre-eminence of the divisional corps (0·864 per thousand of the forces) and of the cavalry of the line (0·498), is a fact which agrees with what Lever said as long ago as 1839, lamenting the high mortality by suicide of the English dragoons, when it also was actually **785** per million (*Journal of the Statistical Society*, Vol. I.) The artillery follows with 0·343, the infantry with 0·309, the foot guards 0·209, the engineers 0·178, and the household cavalry 0·164. Taking into consideration the ages of the suicides among English soldiers, we thus learn the harm of prolonged service, because the mortality by suicide, as well as that from any other cause, rapidly increases every five years from 20 to 40 years of age. We think it may be useful to give the reader the comparison of the two kinds of mortality per 1000 of the forces (1861–70).

[1] These are the annual returns of the English army according to Millar :—

Year	Average army	At home	Abroad	Total	Proportion per 1000 of the forces
1862	193,174	21	33	54	0·278
1863	192,611	22	42	64	0·322
1864	186,388	24	56	60	0·321
1865	179,594	21	30	51	0·269
1866	170,015	28	40	68	0·377
1867	169,399	25	45	70	0·413
1868	169,662	36	43	79	0·466
1869	161,788	33	59	92	0·569
1870	153,978	22	35	57	0·370
1871	169,795	27	41	68	0·400

English Troops	Suicides			Ordinary deaths		
	Native country	Colonies	India	Native country	Colonies	India
Ages from 20 to 25 years .	0·20	0·21	0·13	5·85	8·57	15·92
„ „ 25 „ 30 „ .	0·39	0·33	0·39	7·84	14·52	22·97
„ „ 30 „ 35 „ .	0·51	0·45	0·84	13·64	16·15	31·06
„ „ 35 „ 40 „ .	0·71	0·81	1·03	19·02	26·89	42·04

In the Italian army, also, death by violence increases every year; and among the officers above that of the privates to an extraordinary degree. The suicides of the quinquennial 1871–75 on the annual average of 11,316 officers were 32, or **565** per million; amongst the privates 230, or **276** per million, and in all the troops under arms 262, answering to **294** per million. This is sufficient to demonstrate that the numbers of the military in Italy is almost tenfold that of civilians in general, five times that of the men, and four times of men only between 20 and 30 years of age.

On the suicide of prisoners, summing up what our other works said on that subject published in 1875 and 1877, we may say that the class of delinquents (suspected prisoners, accused or condemned) have more inclination towards suicide, as also towards madness, than the ordinary population, and that this kind of death even continually increases amongst prisoners. It is, however, necessary to keep the judicial prisons distinct from the true convict prisons, because in the former the intensity reaches a degree unheard of among the most frequent suicides of the suspected and accused. The following are, in fact, the average proportions for the two kinds of prison establishments in the principal European countries, calculated on the *Statistique pénitentiaire internationale* (1st year, 1872, Rome).

Suicide among the Prisoners of Europe (1872).
Comparison per Million of the Prison Population.

	Prison		Convict Prisons	
	M.	F.	M.	F.
Denmark	40,320	41,320	1,470	0 s.
Saxony	8,500	4,340	1,780	0 s.
Belgium	1,950	0 s.	1,740	0 s.
Netherlands	1,370	0 s.	0 s.	0 s.
Prussia	—	—	720	400
Sweden	0 s.	0 s.	600	0 s.
Hungary	—	—	400	0 s.
England	1,110	290	350	0 s.
France	750	420	80	340
Italy	160	680	270	0 s.
Austria	0 s.	0 s.	220	0 s.
Switzerland	0 s.	0 s.	0 s.	0 s.
Ireland	580	1,540	0 s.	3,090

The Danish and Saxon prisoners are more numerous than all the others, as is the case indeed in these two States over the whole of Europe; thus this pre-eminence is only a grave exaggeration of a common fact. It may have been seen how heavy the loss among prisoners is when compared with the general returns in each country, since only in France do the male prisoners in the galleys and correctional establishments give a smaller average. The scale of the intensity amongst prisoners does not equal that of the general population, so that we find the Belgian and Dutch prisoners in the third and fourth places, whilst Belgium and the Netherlands, it may be remembered, have a low average. We still find the deaths by suicide almost always more numerous amongst the prisoners in the jails than amongst those in convict prisons, which still more confirms the close relation there is between madness, crime, and suicide, the three great corrupters of the human mind.

Let us recall the reader's attention to the increase of the proneness to suicide of women prisoners, which either equals or surpasses the number of men (in Denmark, Italy,

and Ireland), or has at the least always a very high average, which is never found in the free feminine population. It appears, then, that imprisonment and crime combine to change many other social and personal characteristics of suicides in prison. Suicide is more frequent amongst young prisoners under 30 years of age, but according to the returns of the population at large, it always preponderates amongst the single and childless widowers. Peasants give 54 per cent., and the proportion of the workpeople and servants is yet higher; whilst the number among the liberal professions is few (in Italy 1866–74). It is noteworthy that those guilty of crimes against the person make up more than half of the suicides in the prisons, and those only suspected of crime reach 38 per cent. of the total; we shall find very frequently amongst the determining motives for suicide in general, shame and remorse for crimes committed, or fear of judicial condemnation. Also in the penal establishments, the habits of an active and laborious life seem to diminish the outbreak of the tendency, since 70 per cent. of the suicides of prisoners are by those without work. Then the proportion is heavy (about 10 per cent.) among those afflicted with nervous diseases, hallucination, hypochondria, epilepsy, syphilis, affection of the tubercles, which agrees with the opinion so vigorously maintained by Despine in France, Thompson, Nicholson, and Maudsley in England, Lombroso and Virgilio in Italy, that degeneration or criminal psychoses affects the constitution in all its functions, from the cerebral to the morphological.

With respect to external influences, that of punishment must be remembered, because it is those sentenced for life or to a long period of forced labour who most frequently cut short their existence, whilst the suicidal tendency diminishes the longer the stay in prison is endured

and persons become used to imprisonment, which most of them do in the first six months, or the first year of punishment. They are always the warm seasons, which assist in the developement of the tendency, as is the case with madness also. Lastly, the question of the correctional system has been examined at length by us in the works mentioned, and we must confess that *solitary confinement of the suspected and accused produces a greater proportion of suicides than associated imprisonment and the system of mixed prisoners.* At Mazas in France the suicides are in a ratio of 1 to a thousand, that is **1000** per million (Lecour), at Louvain in Belgium they are **3,200**; at Amsterdam **1,700**; at the *Aagebert* of Christiania **800**; and on examining the aggregate of the penal establishments of Europe, the following differences per million of prisoners are found:

Cellular system: Belgium 3,610, Denmark 2,690, Great Britain 1,090, Italy 2,590; total average **1,370.**

The Auburn system: Great Britain 290, Italy 1,120; average **400.**

Mixed system: Great Britain 590, Saxony 1,360; average **800.**

Associated system: Austria 180, Hungary 370, France 130, Italy 170, Prussia 700, Sweden 660; aggregate average **350.**

It is clear that the solitary system causes the greater loss, although Baillarger, Lelut, Tocqueville, Moreau, Starke, and the French Parliamentary Commission of June 1875, have maintained through their reporter Béranger, that 'solitary confinement cannot be pronounced injurious to the mind and health of the prisoner.'

The conclusion to be drawn from all this is that the great predisposition for suicide, as well as for madness and crime, is a psychical attribute of the degenerate class of

imprisoned criminals, depending without doubt upon their own physical organisation. It is certain that a large part of the criminals feign suicide in prison (Nicholson); but counting only the cases effected, it may be maintained that the social class of prisoners is the most inclined of all to voluntary death. This is an analogy between crime and suicide which ought to stay the hand of those who think of raising it against themselves.

CHAPTER VI.

INDIVIDUAL PSYCHOLOGICAL INFLUENCES. (DETERMINING MOTIVES.)

THE study of the biological and social conditions of individuals has led us now to the study of the motives which induce them to leave this life voluntarily. The fault attributed to statistics of wishing to examine the phenomena of conscience has respect especially to the causes of suicide and crime; and it is certain that in treating of phenomena susceptible of being variously estimated, caution is necessary, nor is it possible to reason from such figures with blind faith. The number of individual motives is immense, as is also that of human wants and desires, to which there may be a corresponding awakening, or a disgust capable of disordering the mind, and it is precisely the multiplied subjectivity of internal phenomena which renders this part of our thesis difficult and often hazardous. The French statistics of suicides, for example, enumerate about 60 causes, the Italian 25, Des-Étangs 15, De Boismont 20, Lisle 50, whilst Wagner reduces them to 14, Oettingen to 10, the Bavarian statistics to two or three groups of 4. It is natural that, on the one side, a list of shades of distinctions, while it corresponds to the variety of facts, has also the inconvenience of fatiguing the attention, and, on the other side, the grouping together, according to a more or less artificial category, although helpful at first to

the understanding of divers kinds of motives, yet leads to forced and inexact classification.

Certain kinds of causes, then, engage the different predilections of compilers of statistics; thus in the Italian the specification of moral causes shows great deficiencies. The heading 'Domestic Troubles' is simple in the Italian works, complex enough in the French, where they are distinguished by such headings as 'Grief for the Loss of Parents or Children,' 'Grief Caused by their Ingratitude or Bad Conduct,' 'Disputes on Family Affairs,' 'Reprimands by Masters,' &c. Thus, again, when it is only said 'suicides caused by *tædium vitæ*,' very different cases are probably united under this heading. Neither 'monomania' nor 'mental alienation' is one single cause in itself; it is possible to pass from political and religious exaltation to the most profound melancholia, through a thousand psychical phases which statistics neither do nor can estimate. And the origin, often quite ordinary, of certain mental phases, registered as mere presumptive causes of suicide, shows the weakest side of this part of statistics. Notwithstanding such defects, we shall find something spring out from the so much despised tables of the 'determining causes.'

The origin of the causes of the suicidal frenzy has already been explained by great and celebrated men, amongst whom it will suffice to name Brierre de Boismont; but our book is a study of comparative statistics, from which every sort of ethical and philosophical disquisition must be excluded. However, in order to show the plausibility of the numerical method in experimental psychology, we will give our opinion on individualism in the motives for suicide and on the difference between 'physical causes' and 'moral causes.'

§ 1. *Motives for Suicide and Determinism.*

It is asserted that the existence of individual motives destroys collective determinism in demographic phenomena, because it seems to those who glance superficially that the part taken by the individual exceeds that belonging to the numerous social, historical, ethical, and biological influences which we have previously studied. When it is proved (so it is argued) that the suicide had domestic troubles or a reverse of fortune, that he struggled in vain against fate or against the bad conduct of his wife, may it not be presumed that the fatal act was preceded by a free exercise of reason, and that the determination to suicide was taken after a *choice* made by the will between life oppressed with sorrow, and death, the extreme term of misfortunes?

The question appears to us exactly turned upside down. If a motive is so strong and decisive as to *determine* men to suicide, it is already, through physiological laws, the *necessary* cause of a natural effect; the existence of a logical process constructed of premises and consequence is a proof of the necessity of the act, which if it were not preceded by ratiocination would be the act of madness. In the latter case, perhaps, instead of a ratiocination it would be a sophism, but in treating of a normal or pathological process, the moral action does not escape the law of causality which rules over all phenomena, and hence also over the human conscience. Where there are laws, spontaneity cannot exist, since if it could, the mind must be able to overpass the limits granted to it by its physical condition, which is simply absurd. Not being able to demonstrate *positively* that the determination of the individual springs independently from the physical

substratum (the grey matter of the brain), we ought with a quiet mind to accept the corollary of psychological physiology that the 'idea of *free will* in the human microcosm agrees with that of the doctrine of chance in the universal macrocosm' (Herzen).

Certain it is that the existence of personal motives, being the first fact perceived by common observation, prevents the recognition in the apparently free human action of those fixed laws which are concealed by the endless number of individual peculiarities. The same thing happens when we wish to judge *by the senses* of the stature of an homologous group of men, which appears irregular only to those ignorant of the laws of man's developement, the differences of sex, age, and race, and the regularity with which individuals are arranged in series so as to be able to know beforehand, as is done every day in levying conscripts, the average size and number of each of them (Quetelet.) Notwithstanding it is said by many statisticians who, perhaps by opening the door to their science at a yet early age of metaphysics, did not dare to arrive at the true signification of the discoveries of that science, that the approximate number of crimes and suicides during one year in one group of men may no less be foreseen *when their intrinsic and extrinsic conditions do not vary*, although there is nothing more *voluntary* than homicide, theft, violation, and suicide. We have purposely mentioned varieties of conditions in which social phenomena exist, because every human act is the product of thousands of tendencies and counter tendencies, more or less *concealed*, which co-operate towards the objective result *perceptible* to our senses. Civilization would be impossible if man, instead of *being obliged* to be what he is, could transform himself according to his *will*.

This appears strange to those who believe that moral

actions depend upon the individuality of each human being, not on the general conditions under which society exists; but perhaps even in suicide the same regularity of racial phenomena is not found. For example, in finding that amongst births there is constantly the *same* prevalence of males, the *same* proportion of multiple parts, there is no difficulty in recognising in it a 'natural complex law' (Süssmilch), which nevertheless does not manifest itself in the characteristics of every particular case. It is the same with regard to voluntary deaths in an unchangeable group of men, amongst whom for each period there is found a given number through madness, through physical suffering, misery, and by heritage. Yet in each suicide individual peculiarities seem to predominate, and nothing remains of the universal conditions. The attempts at homicide and theft, Buckle observes, can be, and are by good fortune repressed, but a plan of suicide is rarely prevented. The man who has made a determination to leave this life eludes every expectation, he remains beyond the vigilance and the intervention of others, and his suicide becomes an isolated act belonging to him who has accomplished it, without any person extraneous to the psychical process, from which the first idea of it was developed, having participated in it. Suicide therefore appears to be the most direct product of will, and differs in this from crime, that its motives rarely proceed from outside, and are generally the most subjective, the most intimate which can be imagined.[1]

But whilst it happens generally as an isolated event, which law cannot foresee, nor of which the compassion or justice of men can stop the execution, it depends upon the influences of all kinds already mentioned by us:

[1] In some cases the idea of suicide arises suddenly in the mind, and the act follows without the individual having the power to restrain himself. The phenomenon depends upon cerebral automatism.

since by *changing these influences* not only are the general returns of violent deaths modified, but those internal and external motives, which influence the determination of the individuals for or against this act, are also changed.

It follows from this that the personal motives of suicide have quite another importance from that which it is wished to attribute to them in the struggle between metaphysical freedom and scientific determinism. Since humanity, *as long as the actual conditions remain permanent*, must pay its tribute every year, it is natural that each man quits life from motives peculiar to himself. But these motives or 'causes' are regularly and constantly the same for men or women, for young or old, for Italian or English, for the physician or the peasant; each one of these individual states has also a specificness in its own determinations, since, as Quetelet and Buckle say, and whatever may be the aspect of *poetic* and *prosaic marvellous* (Block), under which this theorem appears, 'given a certain condition of a social society, a determinate number of individuals must put an end to their own existence.' Each human being may be compared to an orbit described around a multitude of foci formed by the biological characteristics of the individual, by education, by the conditions of public justice and public morals, in short by all the material and moral atmosphere in which the life of man is passed. Only by breaking away from the yoke of these influences can man be called free.

But let us observe a little more closely the causes of suicide, and we shall find that they can only be those produced by *the law of averages*, nature, and differences. The number of voluntary deaths caused by mental diseases, by disorders of the brain nourishment, by the perversion of the moral and intellectual faculties, is considerable. The existence of so many 'physical causes' deserves the atten-

tion of the psychologist; where does madness begin and where does reason end? Who can mark the limits between the normal and morbid function of the brain? This is not a work in which inopportune discussions of the relations between madness and suicide can be repeated. The idea of psychical abnormity is sufficient for those who are accustomed to look at the many weak sides of human reason; it is, on the contrary, insufficient for those who are alarmed at these directions taken by psychology, especially on the judicial ground, where they appear to prejudice ideas held by most people as the palladium of morality and justice. But without concerning ourselves with the psychiatric question, and without enquiring whether the injustice is due to Esquirol, Falret and Bourdin, or to Lisle, Moreau de Tours, and De Boismont, let us ask what sociological signification have the statistical facts gathered every day, and we shall find that a great part of the suicides are commonly ascribed to mental aberration, whilst at least in half of the cases of madness the idea of suicide is sometimes concealed under the troubled appearance of delirium, sometimes towers amidst the ruins of an unhappy mind. A very close link, it cannot be denied, exists between these two morbid manifestations of mind, but just as madness may go on without any attempt at suicide, so the suicidal determination is formed in the healthiest minds, which then carry it out with the coolness inspired by the most perfect logic. And what follows? Even accepting the opinion of Leuret that suicide is the effect either of madness, or want, or crime, we do not see that the edifice of determinism is destroyed nor the idea invalidated which we advanced of its being a social phenomena as necessary as alienation itself, crime, prostitution, and misery.

The 'physical causes' undoubtedly exclude all indi-

vidual spontaneity (in the metaphysical sense); the motive, however, is subjective, more internal than any other, developing itself in the brain or in the organism without any fault or participation of the moral external world. The list of these cases would be still greater if we were able to estimate the psychical condition of many unknown and concealed suicides. The very existence of so many actions *not free*, renders questionable also the spontaneity of those caused by presumed 'moral causes,' amongst which, after diligent enquiry, we can find none which might not be reduced to morbid modifications of the mind. What, indeed, is weariness of life and disgust of existence, but a form of hypochondria and sometimes of melancholia. Misery, nevertheless, is to be ascribed more to physical than moral causes, brought about either by grave nutritive disorders of the brain, by enfeeblement of the constitution, and hence of character, or by the general hyperæsthesia of the nervous system, produced by the anæmic condition. The etiology of mental alienation is continually being enriched on the subject of physical causes, from heredity to traumatisms, from infectious maladies to depravity of character, from bleeding discrasia to delirium of the sensorium, and to disorders of the powers of motion, whilst then, not even accepting the exaggerations of the school of Jacobi, the list of moral causes diminishes at every advance of psychiatrics. We believe that if it were possible to know exactly the physiological temperament of all self-destroyers, and, above all, the hereditary transmission, direct or indirect, of the morbid germs, we should be able to trace back the fatal determination of their last act to its true and efficient cause.

Nevertheless, after all reductions being made, there yet remains the moral sufferings, baulked ambition, vanity, passions, jealousy, and shame, in which it would seem that

the independence of the individual of external influences ought to show itself. But surely it needs no proof to show that the personal motives are a small and infinitesimal portion of the collective motives. Each man has his part in the evolution of humanity; each one has his own passions and wishes to satisfy, but only because these follow the common course and are developed in a prescribed atmosphere. The individuality of our wants and our tendencies is absorbed in the aggregate of social wants and tendencies. That the share of each particular person be definable in this sense or in that, that each has a special orbit and goal, that each contributes his part towards the common action, does not preclude the combination of individual activities into one. The motives which impel the suicide to quit life are not beyond social laws; indeed, man would never have destroyed himself if he had lived far from other men and had not shared in the misery of his fellow-creatures. The more humanity advances, the more it tends to the common association of forces; therefore, in the metaphysical sense, the savage appears to be freer in his virgin forests than the civilized man in his splendid cities. We cannot move without collision, without meeting limits, without arriving rapidly at the boundaries of the circle assigned to us; our wants are not satisfied if they clash against the interests of others, and these enclose and press around us like a circle of iron, to which, in the pettiness of our unmeasured pride, and almost to conceal the cruel truth, we give the vain-glorious names of 'duties of one's own position, exigencies of morals, education, judicial order.'

The ruling direction of the desires and wants of society guides in all ages that of human actions; this is proved not only by history, but by all statistical laws, where all great moral phenomena are resolved into their true

character, as expressions of collective energy, by means of individual energy. It is certain that in all mankind the expenditure of energy happens differently; it is a hard but unavoidable consequence of human evolution and of unconscious natural selection, that there are some who are weak, degenerate, and defenceless, in whom only the basest passions are developed, such as egoism and the lowest wants, under the form of depravity and balked ambitions. Every want of man, although necessary to his perfection, involves victims. A want of nutritive necessities entails madness, suicide, crime, which are displayed among the middle and decayed classes. The erotic needs find them in the many repulsed by sexual choice, in girls betrayed by lovers, in family dishonour. The intellectual wants among the upper classes find their victims sometimes in the ruin of the ambitious, sometimes in the awakening of those hurt in their dearest affections. We see the tide of suicide rise with the growth of mental culture, and every year which passes, new wants arise amidst the civilized classes to which afterwards, without their will having any part in it, humanity must pay a tribute of new victims. To the ancients it was political fanaticism that was harmful, exaggerated religious sentiment to the middle ages, and it is vanity which is harmful in our own age; we allude, let it be understood, to 'moral' motives. The historical transformation of the personal motives for suicide shows that the individual conscience modifies itself with the change of the general conscience, and, indeed, it is but a part of it. Assuredly in every suicide we are surprised by different modalities from those of the others, but it is not by stopping short at the observation of a single planetary body alone that astronomy was able to establish the laws of the cosmic structure; and so it is not by investigating the apparent

disorder in single cases or in small series of cases, that the regularity of social life can be illustrated; but, as the theologian Süssmilch remarks, by a large collection of data.

§ 2. *Physical and Moral Causes of Suicide.*

The regularity with which even in presumed causes of suicide the same numbers are repeated from period to period, would be evident in the long statistical series which we would cite if space were not wanting. But we limit ourselves to summing up in Table XXXVI. a comparison of several countries where the constant and uniform appearance of certain groups of 'motives'—for example, psychopathy—appears, indeed, in very dissimilar statistics.

The groups of Table XXXVI. deserve some elucidation, because the statistics which we possessed were thus rendered more homogeneous and fit for comparison. We have here followed the example of the Saxon and Prussian statistics, besides those of Wagner and Oettingen; thus we reduce the categories to only *ten*, although VII. and VIII. might even form a single one. In I. all the *psychopathic conditions* are included, that is to say—alienation, delirium simple or typhomania, brain fever, monomania, melancholia, madness, pellagra, imbecility, cretinism, religious exaltation (in the case of Norway we add besides religious scruples), political fanaticism, &c. In II. *physical diseases*, painful illnesses—long, desperate, and incurable. In III. *weariness of life* (*tædium vitæ*), in general akin to the psychopathic conditions, but separated in all the statistics; discontent with one's condition, disgust to military service, craving in general, and nostalgia. In Number IV. all violent *passions*, crossed love, jealousy, avarice, anger. In V. the *vices*, libertinism,

drunkenness, and alcoholism. Number VI. is perhaps the largest, since besides *domestic troubles* it includes all *anguish of the affections*, opposition, and dissensions in family or office, the loss or absence of beloved people, indignation at unjust reproofs, bad conduct of relations, delusive hopes, &c. In VII., all *financial derangements*, by the loss of employment, or by gambling, reverse of fortune, the missed inheritance, and lost law suits. In VIII. we reckon *misery* and the fear of it, the lack of food and work. Very large is Category IX., *remorse* and *shame* appear there, the fear of condemnation, or of judicial enquiry, illegitimate pregnancy, the false sense of honour, shame for having committed criminal actions, and the frequent suicides after homicide, infanticide, arson, &c. In the last, X., *despair*, the causes which are not included in the preceding categories, and lastly, the large number of the 'unknown.'

At first sight we are struck by the high proportion of the mental disorders, and of the others relating more or less to the morbid condition of the constitution. In Italy, reckoning *tædium vitæ*, a secondary form of the true melancholia, along with mental alienation, pellagra, and physical diseases, about 50 per cent. of *known* cases are due to pathological causes. An equally grave number was found in the statistics for madness; Petit and Lisle in France assign to this cause about the *third*, De Boismont in Paris about the *seventh*. Even Block, suspicious as he is of suicidal statistics, confesses that, whilst in England the jury and the coroner are almost always inclined to assign the fatal act to an aberration or brain fever, about a *third*, however, in all countries, with a regularity worthy of attention, are attributed to madness or to monomania; 300 per 1,000 in France, 333 in Prussia, 348 in Saxony, 470 in Belgium, 313 in Italy, 400

TABLE XXXVI.—*Presumed Causes of Suicide Proportions per* 1,000

DETERMINING CAUSES	Sweden 1852–55	Norway		Prussia	
		1856–65	1866–70	1869–72	1873–75
A.—MEN					
Number of cases	557	1,092	699	9,450	7,426
I. Mental disorders	397	142	179	295	229
II. Physical diseases	45	—	—	53	61
III. Weariness of life, discontent	6	101	103	119	127
IV. Passions	21	28	4	21	27
V. Vices	309	100	25	99	129
VI. Afflictions, domestic troubles	15	42	21	41	48
VII. Financial disorders	121	167	103	84	41
VIII. Misery	4			39	35
IX. Remorse, shame, fear of condemnation	82	54	46	125	103
X. Despair.—Unknown and diverse	—	366	518	174	199
B.—WOMEN					
Number of cases	122	336	222	2,372	1,753
I. Mental disorders	517	260	284	484	441
II. Physical diseases	82	—	—	72	64
III. Weariness of life, discontent	—	143	104	71	97
IV. Passions	50	30	13	46	63
V. Vices	90	9	—	22	21
VI. Afflictions, domestic troubles	24	74	18	50	51
VII. Financial disorders	58	38	45	8	12
VIII. Misery	24			16	18
IX. Remorse, shame, fear of condemnation	155	71	31	131	108
X. Despair.—Unknown and diverse	—	384	505	99	125
C.—BOTH SEXES					
Number of cases	679	1,428	921	11,822	9,179
I. Mental disorders	418	167	204	333	269
II. Physical diseases	52	—	—	57	61
III. Weariness of life, discontent	8	111	103	109	121
IV. Passions	28	29	7	26	34
V. Vices	270	78	19	83	109
VI. Afflictions, domestic troubles	18	50	21	43	49
VII. Financial disorders	109	137	89	29	36
VIII. Misery	7			35	32
IX. Remorse, shame, fear of condemnation	94	58	42	126	104
X. Despair.—Unknown and diverse	—	370	515	159	185

in several States of Europe.
of the Two Sexes.

Saxony			Würtemberg		Baden	Belgium	France			Italy	
1847–56	1857–66	1867–76	1846–50	1873–75	1853–56	1840–49	1830–52	1851–60	1866–75	1866–71	1872–77
3,575	4,521	5,995	1,400	—	263	—	39,210	18,713	39,915	3,483	3,770
300	302	304	(209)	—	297	—	216	263	252	237	280
66	58	59	192	—	114	—	90	108	127	70	82
65	104	97	(190 ?)	—	—	—	65	52	45	35	43
12	18	17	14	—	19	—	30	23	17	52	49
143	134	96	—	—	38	—	112	129	149	14	12
21	21	26	97	—	407	—	111	118	138	75	96
43	36	32	168	—		—	104	83	65	134	170
101	60	46	—	—		—	67	48	48	58	101
127	130	89	130	—	125	—	74	82	64	28	42
121	137	234	—	—	—	—	131	94	95	297	125
957	1,227	1,432	390	—	64	—	12,797	5,749	10,035	899	1,195
532	555	534	(157)	—	468	—	372	439	415	408	417
85	64	86	158	—	125	—	91	108	118	101	73
41	53	48	(154 ?)	—	—	—	48	40	29	12	7
19	28	45	23	—	94	—	59	56	45	96	75
35	29	20	—	—	—	—	53	55	56	2	1
38	33	29	77	—	188	—	133	127	164	76	90
—	4	1	204	—		—	29	25	18	19	27
43	22	23	—	—		—	50	30	36	39	52
118	134	74	227	—	125	—	59	56	52	21	27
89	78	149	—	—	—	—	106	64	67	226	231
4,532	5,748	7,427	1,790	840	327	2,428	52,007	24,462	49,950	4,382	4,965
348	356	348	(200)	401	331	470	255	304	285	272	313
70	59	64	186	59	116	18	90	109	125	77	80
60	93	87	182	(85)	—	37	60	49	41	31	34
16	20	23	17		34	124	37	30	23	61	55
120	112	81	—	275	30	94	98	112	130	11	9
24	24	27	92	(85)	364	106	117	120	143	75	95
33	29	26	175			109	85	69	56	110	136
89	52	42	—				63	44	46	54	89
125	131	86	148	95	125	41	71	76	61	26	38
116	124	216	—	—	—	—	124	87	89	282	151

in Würtemberg. During 1846–50, as many as 432 per 1,000 suicides in Bavaria, and during 1857–66 up to 482, were affected with madness or physical infirmities.

With respect to the prevalent forms of madness, De Boismont, amongst his 4,595 suicides, has been able to distinguish it in 652 cases, in which predominates (131) the homicidal and suicidal monomania. In other statistics, we sometimes find the simple heading of 'alienation, delirium, monomania, mental diseases;' sometimes, on the contrary, various forms are very definitely distinguished, as in Italy, Prussia, and France. The proportion of monomaniacs amongst Italian suicides is so much above that of the mad in general as to justify the suspicion of an excessive readiness in ascribing this unfortunate act to this kind of madness. In fact, impulsive monomania afflicts scarcely 2·40 among the madmen, and 1·87 amongst the mad women shut up in Italian asylums (Verga); on the contrary, in the aggregate of suicides which happened from 1866 to 1877, there were the following forms of madness:

Italy 1866–76	Actual numbers			Proportions per cent.		
	M.	F.	Total	M.	F.	Total
Mental alienation, delirium .	1,076	451	1,527	57·3	52·2	55·6
Monomania	182	91	273	9·7	10·5	9·9
Pellagra	541	290	831	28·7	33·5	30·3
Idiocy, imbecility . . .	52	19	71	2·7	2·2	2·6
Brain fever.	30	14	44	1·6	1·6	1·6
Sum total . .	1,881	865	2,746	100·0	100·0	100·0

Monomania would therefore appear to be five times more frequent among suicides than among the mad, but in truth it is of all alienations of mind the most difficult to recognise. Monomaniacs mature their fatal project while hiding delirium, until they suddenly startle the family and society by some extravagance, and often by

some fatal action in evident relation with morbid ideas. The instinctive impulse in other cases arises without delirium, and makes itself so much the master of the individual will as to draw the worthy man to homicide, the prudent and courageous to suicide. But in these, notwithstanding that the symptoms of true delirium are wanting, the reflective and sensitive faculties are not perfect from the moment that the impulse has power to weaken and conquer them; thus it is plain that all the mental energy is then concentrated on the morbid action, and instead of a delirium in the ideas or senses it is the will which is possessed by it under the form of a convulsive relaxation of the sensitive and psychological faculties, as epilepsy is of the encephalic motive cause. For these reasons the monomania, whether intellectual or whether impulsive, must have a large share in the etiology of suicide, but probably its influence is exaggerated by calling many afflicted with melancholy and hypochondria monomaniacs.

In France the same error is committed, in our opinion, since, with the exception of pellagra, the distinction of the psychopathic conditions of suicides is the same as the Italian; and in the period 1866-75 we find 585 monomaniacs (4·1 per cent.), of whom 455 were men (4·5) and 130 women (3·1). Nevertheless, in that country the cases of melancholy are separated, although, contrary to rule, they are less numerous than the monomaniacs (3·8 per cent.) Brain fever is more frequent in France, exactly double what it is in Italy (3·2), which arises from ascribing less rarely the delirium of suicide to an acute disease of the brain. The suicides of idiots also mount to double the number amongst the French.

The better conditions of scientific culture in Germany shows itself in like manner in distinguishing suicides from madness, where we see the melancholy slightly predomi-

nating, and the undetermined relegated to the last place. In Saxony, during the thirty years 1847–76, and in Prussia during the nine years 1866–75, the suicides from madness are classed as follows:

Form of Madness	Saxony 1847-76				Prussia 1866-75			
	Actual numbers		Per cent.		Actual numbers		Per cent.	
	M.	F.	M.	F.	M.	F.	M.	F.
Religious exaltation	14	6	0·3	0·3	27	10	0·6	0·5
Monomania	—	—	—	—	31	9	0·7	0·5
Melancholia, hypochondria	2,832	1,239	66·6	63·5	2,989	1,267	67·0	66·0
Brain fever, typhomania, fever, &c.	—	—	—	—	209	37	4·7	1·9
Madness, mania	1,111	594	26·1	30·4	256	41	5·7	2·1
Mental excitement	297	116	7·0	5·8	—	—	—	—
Imbecility, idiocy, cretinism	—	—	—	—	186	109	4·2	5·7
Other forms or not named	—	—	—	—	763	449	17·1	23·3
Total	4,254	1,955	100·0	100·0	4,461	1,922	100·0	100·0

We are not able from these data to make a comparison, for any country, between the prevalent forms of madness among suicides and those among the demented, of whom generally the smaller part are those brought into asylums. The morbid forms which preponderate amongst the Italian mad people who are shut up are for madness 20·75 per cent., and for mania, with or without violence, 18·62 (Verga). On the other hand, simple melancholia was 9·35, pellagra 8·04, with slight difference between the sexes. Of all the other forms none rise above 3·60 per cent. But amongst the mad who are at large it may be presumed that the proportions are inverted for many kinds, dementia perhaps being excluded; for example, those suffering from pellagra, epileptics, idiots, cretins are much more numerous among those at large than among those under care.

The Italian statistics say nothing concerning the relation of suicide to melancholia; the Prussian and Saxon, on the contrary, show that two-thirds of the voluntary deaths are owing to melancholia or hypochondriacal conditions;

it may be said that in Italy the place of these is taken by those who are mad through pellagra, which, moreover, has many characteristics in common with lipemania. The numerous cases of weariness of life or nostalgia, discontent with one's own state, disgust for life, fatigue of physical suffering, and lost hope of cure, approach, without doubt, to the melancholy conditions. In all these, a uniform base is found; depression of the sensitive faculties, exaggeration of the egoistical sentiment, perversion of general sensibility, by means of which life is changed into an insupportable load, and all the affections become dead. Antipathy to existence is a real illness of the brain, it is a morbid modification of the conscience and of the affections, which may often indeed be accompanied, as in Leopardi and Byron, by the brightness of a powerful intelligence, but which more often weakens the character and debilitates the moral sense.

It is probable that suicides through mania may be the least frequent, because this form rarely passes unobserved on account of incoherence of ideas and extravagance of acts shown, and the prompt consignment into an asylum forestalls every dangerous accident. As to the mad, their contribution would, on the contrary, be great both on account of their number among those at large, where, being always a burthen on the family, they are less looked after, and because in madness the impulse towards suicide is all the more fatal, as the reflective faculties are less in a condition to estimate the consequences of the act. The small number contributed by the half-witted (idiots, imbeciles) in all countries is noteworthy, since they form the larger part of the mad among the population. In Italy, among the suicides they amount to 5·86 per cent. of men, and 8·56 per cent. of women; but at the census of 1871 they counted 73·0 per hundred among men of weak mind and

86·0 amongst the women. In Prussia, their proportion among suicides is still smaller (from 4 to 5 per cent.), whereas, on the contrary, they make 61·5 in the total of mad people. But the rarity of suicide amongst the half-witted is accounted for by the small part taken by them in social and family life.

Let us now proceed to consider the general relation of suicide with madness in the whole of Europe, where these two moral diseases of the age augment with equal steps. In the north-west and centre, the proportion of the mad rises to its *maximum*, exactly as does that of suicides. There are calculated to be annually about 300,000 mad in the whole of the Old World, and the greater number are found in France, Germany, and England. According to the works of Legoyt, Osiander, Hausner, and Guttstadt, the scale for mental diseases in the various States is not very different from that of the suicides. At their head stand the countries of Germanic stock, with about 2 mad people in 1,000 inhabitants, then the Celto-Romans with 1 per 1,000, and lastly, the Slavo-Tartars with 0·6 per 1,000. In the following table we institute a comparison among different States (Table XXXVII.), and although the numbers of the mad are already antiquated, and the census made unequally in the different States, yet from the aggregate of these countries it is established that those which are pre-eminent for madness have also a high number of suicides; and it is worth noticing the constant superiority in numbers of Denmark, Saxony, and Schleswig, and of the German countries in general. Strange, on the other hand, is the position in respect to Italy occupied by France, Bavaria, and Sweden, but may not this arise from the registration of idiots and imbeciles? It is still doubtful whether in North Italy those suffering from pellagra at the end of 1871 were returned in the

census as *mad*, because they are not yet accustomed in the Italian country districts to recognise the mental symptoms of pellagra, except when the sick person is at the last extremity. It is here that the usual error is committed of considering the functional state of the brain as independent of the morbid conditions of the constitution.

TABLE XXXVII.—*Relation of Madness with Suicide.*

COUNTRIES	Mad people		Suicides		Number of order	
	Year of the Census	Per 100,000 inhabitants	Period or years	Per million inhabitants	For the mad	For the suicides
A.—States.	(Oesterlen)					
Norway	1855	310	1851–55	107	1	8
Würtemberg	1853	312	1846–56	108	2	7
Denmark	1847	280	1846–60	258	3	1
Saxony	1858	261	1856–60	245	4	2
Iceland	1845	260	1846–50	(200?)	5	(4)
Schleswig-Holstein	1845	250	1856–60	209	6	3
Prussia	1871	245	1866–70	133	7	5
Scotland	1858	185	1856–60	34	8	14
Hanover	1856	170	1856–60	131	9	6
Italy	1871	164	1869–73	31	10	15
Ireland	1851	150	1831–41	14	11	16
France	1851	130	1851–55	100	12	9
England	1860	116	1856–65	69	13	12
Bavaria	1857	110	1846–56	73	14	10
Sweden	1850	100	1851–55	71	15	11
Belgium	1842	100	1841–45	62	16	13

It is a gross tautological sophism to give the title of 'moral suffering' to sorrow for a misfortune, to misery, privation, crossed love or jealousy, whilst they reserve the title of 'physical suffering' to pain, which arises from a mechanical injury, from an irritation of the peripheral nerves, or disease of the intestines. The cause is unequal, but the effect is the same; it has regard to a modification of the nutritive state of the brain in both cases. The expression of moral suffering is the same as that of physical suffering, because every abnormal condition of the nervous sensibility disturbs the functions of the constitu-

tion. Thus it happens that the reactions after suffering, whether it concerns traumatic lesion or the loss of a relation, are everywhere alike; in the groups of muscles, in the respiratory and motor-vaso phenomena, in language, in tears, in psychical disturbances (Mantegazza, 'Espressione del dolore,' *Arch. Antrop.* 1875). And what is a heavy sorrow if not a violent sensation, subjective, originating in the psychical cells, through which, in obedience to physical laws, the reactionary energy in proportion to the intensity of the impression is discharged? Every excitement caused by grief, whether it is created by the conscience or not, whether it arises from external influences or from internal sensation, always modifies by means of the transformation of the forces and that of sensation, the physico-chemical condition of the nervous centres; and the change is expressed by different actions of the functions, which may be by tears, sobs, delirium, religious susceptibility, blasphemy, crime, or suicide, according to the temperament and education of the individual. The first philosopher who has understood the true nature of suffering is Herbert Spencer ('Essays, Scientific and Political,' 2nd series, 1863, p. 109), whose psychological school, based upon physiology, admits that in a given moment the quantity of free nervous force, produced in us by the quality called sensation, *must* show itself in some way, producing an equivalent manifestation of force in more rapid thoughts, in exalted ideas, disordered movements, cries, howls, despair, diarrhœa, paralysis of the heart. Such reaction is so *necessary*, that if it fails, or is not possible, the suffering would destroy the soundness of the brain.

For us, then, there is no difference between physical and moral suffering, because in the same degree as suffering and prolonged diseases are fatal to mental health, so

is a sorrow which happens suddenly or lasts persistently. And thus it is that physical pain enters among the causes for suicide for about 8 per cent. in Italy, 13 in France, 19 in Würtemberg, 10 in Norway, and 12 in Prussia. The most acute physical suffering, owing to the accumulation in the blood of an abnormal quantity of carbonic acid, darkens the intellect so far as to cause it to fall into crime or rage; after which comes an exaggerated reaction for the discharge of the excessive tension of the brain, and re-establishment of the equilibrium, a reaction driven on even to suicidal phrensy. This refers always to extremely painful illnesses, or incurable affections, for which the physician has declined all responsibility, but in both cases there is an enfeeblement, progressive anæmia, and insufficient food for the brain. Chronic and diathetic diseases, cancer, syphilis, misanthropy, the slow affections of the spinal cord, and above all of the locomotor ataxy, affections of the bones and of the skin, and disfiguring wounds, often throw the unfortunate sufferer into despair, so that the idea of suicide is at the first rejected with horror, whilst under delusive prospects of improvement, but afterwards tolerated, and finally welcomed, it ends by triumphing, developing itself in a mind weakened by suffering, or rather in the weakness of a brain already hurt by the progress of disease. According to Prussian statistics, physical disease, by which in the four years 1869–72 were caused 671 suicides, are divided thus between the two sexes:

Prussia 1869–72	Actual numbers			Per cent.	
	M.	F.	Total	M.	F.
Very painful diseases . .	65	21	86	13	12
Slow, chronic „ . .	107	47	154	22	27
Incurable, desperate diseases	121	38	159	24	22
Undetermined kinds . .	206	66	272	41	39

It is worthy of note how uniform the proportions of the two sexes are, and how the prolonged and incurable affections are even less supportable than the painful ones.[1] Even the loss of one of the senses by taking away a means of communicating with the external world predisposes to melancholia and suicide. In Prussia, in 1869–72, there occurred 20 suicides of blind people (17 men and 3 women), and 1 of a deaf-mute woman; and as according to the census of 1871, there would be 22,978 blind in Prussia, that would give the probable annual loss of 216 per million, whilst for the whole population it is only 133. Acute and habitual alcoholism may be added to the physical causes, because of the known disorders produced by alcohol on the nutrition of the whole constitution. The relations between alcoholism and suicide have been shown by so many up to this time, beginning with Magus Huss down to Lunier, Fazio, and Baer, that we believe it to be hardly necessary to insist on the general import of the statistical figures. The number of violent deaths in France is, according to the works of Lunier ('Ann. Med. Psychol.,' 1872, 'Journal de la Soc. de Stat.' 1878), in direct ratio with the consumption of alcohol, nay, in several of the departments the increase of madness and suicide appears to attend that unhappy habit of 'civilized' peoples. The investigation of Lunier leads him over 79 departments, divided according to the quality and quantity of alcohol produced and consumed. The results of this enquiry are so important, and the figures have so eloquent a signifi-

[1] Out of 214 suicides in Paris through determinate physical disease were found: phthisis and affections of the chest 27; injuries to the sight 19; cancer 19; paralysis 17; diseases of the stomach 13; cephalalgia 15; venereal diseases 14; diseases of the urinary passages 13; of the heart and great vessels 19; epilepsy 6; gout 6; loss of strength 6; all the other affections (intestinal, cutaneous, scrofulous, hepatic, brain, infections, hæmorrhoidal), from 5 to 1 (Brierre de Boismont).

cance, that we think it worth summing them up in a synopsis, giving warning that we unite, for want of space, the consumption of wine and cider.

Influence of the Consumption of Alcohols on Suicide in France.

Departments	Annual consumption in litres per inhabitants				Alcoholic frenzy per cent.		Suicides per million inhabitants	
	Wine and cider		Alcohols					
	1849	1869	1849	1869	1856–58	1867–69	1849–50	1868–69
I.—Departments which have no vintage or but little.								
a. 1st Group (3) . .	10·12	11·57	3·46	5·88	5·68	11·31	105·6	154·8
b. 2nd „ (2) . .	57·20	64·80	**5·47**	**8·48**	16·69	21·89	**161·0**	**253·7**
c. 3rd „ (11) . .	77·24	84·42	2·43	4·08	10·47	19·61	85·9	135·4
d. 4th „ (5) . .	80·37	126·23	1·49	2·69	7·37	10·25	144·2	145·3
II.—Departments which produce wine and alcohol.								
e. 1st Group (18) . .	59·64	93·43	0·53	1·00	7·63	11·40	88·2	111·5
f. 2nd „ (9) . .	80·35	91·46	1·25	1·94	7·92	12·25	120·0	173·4
III.—Departments which produce wine and cider, but little or no alcohol.								
g. 1st Group (2) . .	51·87	67·48	1·75	3·92	11·22	15·53	103·8	142·4
h. 2nd „ (29) . .	62·12	72·97	0·69	1·30	6·04	10·02	74·5	107·9

It seems that the abuse of alcohol is more hurtful than that of wine, and that the alcohol of cider is more hurtful than that of the grape, beetroot, or barley, since in the north, where suicide and alcoholic frenzy prevail, the use of spirit and the fermented juice of apples is the most common. The Seine (included in group 4, series 1) is the department where most alcohol is consumed (in 1869, 9·38 litres of alcohol per head, and almost 300 of wine!), and has also the heaviest returns of violent deaths (**447** in 1849–50, **370** in 1868–69). Let it be noted, then, that in those departments where the abuse of alcohol increases the most, there also has the alcoholic frenzy amongst women increased alarmingly (departments Aveyron, Allier, and Haute-Garonne), in opposition to those in which the habit increases in a less degree (Loiret, Hautes-Alpes, Aube, Rhône, Isère, &c.) Lunier was besides able to

show that in 1878 the number of suicides through alcoholism increases every year in France ; in 1849 they were scarcely 6·69 per cent., but twenty years after they rose to double that number, 12·98, and in the five years 1872–76 the proportions were 11·6 ; 10·5 ; 10·1 ; 10·3 ; 13·4 per cent.

These facts are confirmed everywhere where alcohol or beer is consumed in excess—in the United States, in England, Ireland, Scandinavia, Russia and Germany, and in the Netherlands. It may be seen in our Table XXXVI., where the category of 'vices' includes specially acute or chronic drunkards, what part this habit plays with regard to suicide in various countries. And the numbers would be increased if it were possible to diminish the category of the 'unknown.' In Germany, according to Böttcher, 56 per cent. are owing to the use of alcohols. Denmark, which pays one of the heaviest tributes to suicide, consumes as much as 16 litres of alcohol each year per head (Fürste). Sweden has for long been the classic ground of alcoholism, and before the last restrictive laws also for suicides owing to that cause ; in fact, up to 1845 the proportion was 46·6 per cent., in 1846–50 it rose to 62·2, and in 1851–55 to 65·5 per cent., but fell in 1856–60, on account of the severity of the Government measures, to 18·2, and in 1861–64 to 11·2 (Baer, *Der Alkoholismus*, ecc. Berlin, 1878). In England the annual consumption of alcohol, on the contrary, rose from 4·12 litres per head in 1825 to 9·07 in 1871, so that Brown found that 13·7 per cent. of suicides accrued from alcoholism (*on Intemperance and Insanity*, second part, pp. 6–7). In Italy, where the great quantity of wine is fortunately balanced by the small production and consumption of alcohol, there were only 90 suicides through alcoholism in twelve years (about 1·10 amongst men and 0·16 per cent. amongst

women). It is certain that a portion of these deaths is due to alcoholic frenzy, which especially arises from the use of the worst brandy of commerce, and which is marked by a depressed condition of the mental faculties, by terrible hallucinations, disorder and convulsive spasms, and hence the strongest impulses to homicide and suicide. It should be noted that the contingent of mad people through drink is greater in Italy than that of suicides through the same cause; it is 3·01 among men and only 0·34 among women; 1·76 in the aggregate (Verga).

A progressive sequence from the physical to the moral causes is given by heredity and by the constitutions which undoubtedly accompany a morbid condition of the brain. Heredity figures many times as the beginning of all psychical degenerations, and as to suicide it was demonstrated experimentally by Esquirol, Cazauvieilh, Falret, Lucas, Moreau, Doutrebente, and a host of others. In the Bavarian statistics, which alone take notice of this, inheritance appeared during 1857–66 in about 13 per cent. of known cases, and then reached 18 per cent. in 1866; but it is well known how difficult it is to gather up the exact remembrances of very many people, wherefore this proportion is much below the truth.

The suicides committed in the state of pregnancy or after child-birth, often accompanied by infanticide, are not rare among women; in Italy and Prussia they reckon 22 per thousand, in France 29, in Norway 50. The greater number concern girls seduced and then abandoned, whose responsibility in criminal acts is doubtful, according to the mad doctors of the somatic school. In the anæmic condition, in which the uterine functions place them, woman shows a great propensity to psychical disturbances on account of diminished energy of character and hyperæsthesia of the nerves, and with regard to hysterical suicides

they are rather diseased in mind than sane. If to such organic conditions we add the fear of dishonour, shame, grief at being betrayed and desperation at desertion, we have an aggregate of moral influences which act with morbid excitement on the brain, and often take away all responsibility of action.

The relation between suicide and the morbid condition of the brain is also well demonstrated by the results of the autopsy of suicides. The nature of this work prevents us speaking at length on this subject, although we wish to mention how Esquirol and Forbes-Winslow many years since made statistics of the wounds met with in the autopsy of suicides, and they found them both frequent and serious. In Würtemberg during 1873–75 they examined 594 dead bodies and they found: lesions of the brain and its envelopes 265 times, that is 45 per cent.; lesions in other organs 98 times, 16 per cent.; negative result 231 times, that is 39 per cent. Amongst the diseases of the brain those which predominated were chronic meningitis, the adherence of the membrane to the grey substance, atheroma of the arteries, varicose veins and intra-cranial exostoses; and amongst those of the other organs in the foremost place the abnormal positions of the intestines and the stomach, so frequently found among those suffering from mental alienation, tumours in the abdomen, degeneracy of the liver; in the second place genital urinary diseases, and especially of the ovarian cells, hydatids of the kidneys, Bright's disease, hypertrophy of the prostate, restrictions of the urethra, and lastly, heart disease and aneurism.

The English statistics of the causes of death kept with such exactness by Farr show the affinity of suicide with nervous diseases in another way, that is, by the surprising stability of the annual tribute paid by the population to

each of the diseases. In fact, the following are the averages *per million* inhabitants for the ten years 1867–76 and for the chief affections of the nervous system:

Years	Suicide	Cephalalgia	Apoplexy	Paralysis	Madness	Chorea	Epilepsy	Convulsions	Other cerebral diseases
1867	62	199	490	509	30	2	109	1,239	267
1868	70	207	494	501	31	3	110	1,206	250
1869	73	214	509	504	33	5	117	1,199	254
1870	70	222	521	523	39	4	117	1,192	249
1871	66	213	509	519	43	3	109	1,121	248
1872	66	221	515	507	35	2	116	1,109	238
1873	65	230	527	546	37	2	118	1,131	247
1874	67	246	547	535	39	3	110	1,156	261
1875	67	287	559	540	42	4	124	1,095	299
1876	73	281	548	497	39	5	115	1,052	269

There does not seem to us now to be any necessity to demonstrate the signification of these numbers to the reader of this work.[1]

Connected likewise with the causes of the 'physical' class is another which approximates to the moral causes, namely, misery, with all its horrible and shameful consequences. No nation is exempt from this unfortunate calamity, but Italy appears to have the sad pre-eminence, although its statistics do not note those who die of hunger. The economical conditions of the country undoubtedly have influence in this matter: in the years of agricultural distress

[1] On the other hand, it may be observed that the fatal tendency of brain diseases increases in England *with age*, as does also the readiness to commit suicide. Out of a million of different living beings in four groups of ages, there were in London during the decennial 1861–70 these proportions in the mortality:

	25–35 years of age		35–45		45–55		55–65	
	M.	F.	M.	F.	M.	F.	M.	F.
General mortality . . .	10,859	8,798	17,142	12,844	25,682	18,518	43,848	33,450
Deaths by suicide . . .	140	51	239	88	357	104	474	90
Death from disease of the brain	733	483	1,551	1,011	2,897	2,107	6,525	4,840

(for example, in 1870–74), the suicides increased through misery equally with those caused by pellagra. Want and pellagra then are sisters, since it seems to us that the exclusive opinion of those who ascribe this latter solely to the consumption of spoilt maize (Lombroso) is not beyond criticism; they forget that the cause of it, certainly consisting in the terrible indigence of the proletariat population of the country, is much more complex (Bonfigli).

And now we have arrived at suicides accruing from the excitement or depression of the sensitive faculties: as domestic troubles, deluded ambition, fear of punishment and dishonour; or from the most exalted passions, love and its morbid exaggeration, that is to say, jealousy; we have arrived in short at the manifestations of pitiless egoism.

It is a strange idea which we find expressed by Ferrus and Despine on the nature of the passions which drive men on to suicide. They admit that in men of sound reason suicide is most often determined by noble and generous sentiments; but this is inaccurate. The epochs and the nations in which suicidal frenzy is developed are really those, as Ferrus says, with an advanced civilization, the greatest political power, the highest psychical aspirations, but against the egoistical motives of crimes of blood we cannot, as is maintained by Despine, set an imaginary moral superiority in suicide. The more closely the determining causes of it are investigated, the more does it appear to be induced by a subtle egoistical sentiment. History proves this by enumerating and commenting with pride upon the very few and now traditional cases of voluntary death for love of country or philosophical fanaticism of a Cato, a Seneca, and a Pætus. But is it really certain that at the root of these murders and under the splendid appearance with which Greco-Roman classicism has known how to invest every little action of those ancients for our

degenerate posterity, is it really proved that we are to exclude from the motives the love of the 'I'? The causes of a political and religious order represent, according to the before cited psychologists, the height of the dignity and nobility of human aspirations; but how many of these are there in comparison with the overwhelming number ascribable to ambition, vices, cowardice, and vulgar prejudice?

Human nature is also imperfect even when it attempts to raise itself above its own nature. In every case the suicide of those is to be praised who, struck down by misery or wearied by the passion of gaming, would not seek the satisfaction of their wishes in the possessions or blood of others; but it is necessary to enquire whether this act was determined upon from respect to social laws or rather from weariness of present sufferings and from fear of those of the future. And what else are moral necessities but a psychical transformation of those which are at the root physiological? The evolution of the intellectual faculties has induced sexual love, the egoistical principle of utility, the instinct of the preservation and perfection of the 'I,' the desire to set aside the nutritive and sensitive propensities, so as to detach them, so to speak, from the animal frame, ennobling them with the character of superior needs belonging to man exclusively. Saint Marc Girardin thinks, although he expresses himself in other words, that man would never have contemplated self-destruction if the developement of the cerebral faculties had not added to his sufferings the torment of thought. It is not the nobility or elevation of motives which can make suicide appear to us as though always caused by generous sentiments, it is, on the contrary, because we are accustomed to consider the secondary effects and the modality rather than the spirit of things. The metaphysician and the moralist are always surprised at the aspect of human thought which 'reflects

itself in itself,' and do not perceive that under the heap of ideas organic necessities are always the only foundation of human action. How much has not the man of higher race ennobled love, raising it even to the high summit to which the imagination of Shakspere, Dante, Goethe, and of Milton reached! Yet who would deny that the sentiment by which the hearts of these heroes of thought beat was not produced by almost unconscious evolutions in the series of human phases, by that same instinct by which the Australian who steals and violates his woman in the forest, and the Hottentot disfigures her in the external generative organs? It is mournful and sad for those who think metaphysically of the kingdom of man to admit this transformation and the existence of human characters which cannot be reduced to biological laws; but for those who observe with the calmness given by the knowledge of truth it is also a point of comfort and pride to confirm the base origin of what now forms the most precious characteristic of the superiority of man.

We do not deny that there are suicides from elevated and generous causes, but they are excessively rare. We will pass over historical facts for two reasons; first because, coloured by the splendour of the Zenonian stoicism, they are traditional, and transmitted to us without the counter-proof of a conscientious examination, and without that psychological data which nevertheless we consider necessary in these days to estimate properly the smallest moral action. The second reason is that, even if we accept the nature of the causes indicated by historians of the time (political aims or offences against self-love), yet we do not recognise any great moral superiority in them. In fact, how can that voluntary death be called moral which, anticipating a future danger, shows fear and want of sufficient energy to await it, and when, in place of fighting,

the battle-field is abandoned by the deserter? That this kind of suicide is not the kind depicted for us is proved by the fact that, notwithstanding the progress of morals and civilization, it is practised by no one and in no country. We certainly find in modern times political suicides caused by the French Revolution, when the guillotine became an instrument of voluntary death for those who, deprived by the Terror of some friend, hastened by self-denunciation to follow on the same course (Des Étangs). But here the extraordinary excitement of the sensitive faculties which always accompanies great political actions enters the field; these are morbid exaggerations of opinions, which as they must be included amongst the acts of so called fanaticism, clearly fall within the dominion of mental pathology. There is only one contingency in which it may be said that the criminal or mad action is suggested by a noble feeling, and that is, when man sacrifices life for the good of his fellow-creatures, notwithstanding the repugnance he feels to die. But rare are the occasions on which man shows such disinterestedness.

We have here to speak of suicide, not of sacrifice of life nor of courage; only too mournful and defiled is that page of human history which we have to turn. In our days suicide is the effect of egoism, of unsatisfied passions, and we are obliged to make more of pathology than of morals. Let us hasten, however, to say that the higher part of ourselves does not fail to reveal itself even in individual motives for suicide; but this part is most of all the feminine. Not seldom is woman moved to throw away her own existence from sentiments and affections which suffice to ennoble vile and egoistical human nature; and it must be so, because it is natural that she who pays to affection the precious tribute of her own life, who for the

well-being of her children and those dear to her knows so often how to offer the even greater tribute of supporting the weight of existence. In man the manifestation of personal interests rules in every case, and as only a fourth or fifth of the suicides are committed by women, the already small proportion of those which are due to noble and generous motives becomes still more attenuated.

All the sufferings through which one seeks to leave life prematurely are negative. Psychology, thanks to Spencer, Bain, and Dumont seeking to solve the scientific question of pleasure and pain, has decided that pain is always due to a diminution of energy, which may depend upon an augmentation of expenditure and activity (*called positive*), or by a suppression of excitement, reparation and reaction (*called negative*). The last category is the most numerous and natural, nay positive pain may likewise be resolved into it, because the excess of activity brings as its consequence an exaggerated expenditure and diminution of energy (Dumont). On account of our reluctance to adopt dialectics in scientific investigations, it seems that the psychological theory is reduced to the physiological one already mentioned; namely, that suffering is always the effect of the want of satisfaction of our needs, whether nutritive, sensitive and reproductive, or cerebral. Man judges that suffering when it specially arises from a negative diminution of his own energy, from an unsatisfied desire, gives him a right to take his life; and since the moral importance corresponds to the intensity of the want assigned to it by man, it is when the desire attains to the level of a passion that the suffering throws the mind into a state of disorder, and causes the momentary pain of death to appear less hard than the lasting consciousness of loss or of the awakening from illusions. In fact, if that state of general instigation

which is called impassioned enters into every unsatisfied desire (suffering), every living force of which man can dispose takes part also in it, and the chief of them belong to the intellectual, to which civilization has given such co-ordinate influence that no act can be fulfilled without the corresponding expenditure of cerebral energy. In all cases of suicide, whether they happen after weighing motives and consequences, or are the effect of a sudden resolution, emotion is necessary, that is to say, suffering or cellular automatism must have thrown the brain into abnormal excitement. *Tædium vitæ* is a suffering, even the characteristic negative suffering of privileged races and classes, among whom there are suicides even in the midst of all the gifts of fortune, and apparently without any cause of suffering, so that those who are wearied would appear to wish to fly from the monotony of existence by artificially exciting their own sensibilities. But is it possible to believe seriously in the declaration of coldness and indifference in the face of death left in writing by these suicides? It is certain that moralists and De Boismont himself give this too much weight, and as it is not to us an irrefutable proof of soundness of mind, neither is it proof sufficient that in the suicide of the cynic or sceptic the emotional element, suffering, is wanting. Of that ostentatious coolness there remains a lying and proud written evidence, but who can know what a struggle that moment of passing resolution cost the hand by which those few lines were traced? And do we not see morbid conditions of the mind, delirium of the understanding, disordered passions, march together with the most inflexible calmness, with the firmest resolution, and the most subtle logic?

Seeing, then, that the anguish produced by the false expenditure of functional energy (unsatisfied desires)

corresponds with the aggregate of suffering (passion) which ends in madness, ecstasy, despair, and hence in suicide, so in pain caused by offended self-love or by wounded affections, the necessity of the resolve taken is evident. It is maintained that suicides through shame, modesty, remorse, offended dignity, are noble and generous acts, but is it not clear on the contrary that the suicide wishes to spare himself the unhappy consequences of his own position, and he thinks to interest in his memory those whose derision and contempt he had to fear while living? Suicide was therefore selfishly necessary for him.

But let us consider lastly how the series of determining causes are resolved into one only, to despair at not having gained or at having lost that which, in the emotional condition of passion, was valued more than life. For if in the actual conditions of associated life suicides increase, it is because with so many and so overwhelming wants which multiply and extend every day, human egoism has more frequent opportunities for displaying itself. And, indeed, it shows itself in everything, beginning with love, that emotional condition which gives the greatest pleasure to most men, but sometimes also the greatest pain. Whether it concerns an opposed affection or the desertion of the beloved one, it is in each case a powerful want which desires to be satisfied; nor is it possible to understand the suicidal frenzy in a case where affection should take the tranquil and ideal paths of platonism, because among suicides of this kind it is not the happiness of others which they have at heart, but their own. And this is the case even in those caused by the egoistical transformation of love into jealousy, which so often disorders the mind and leads to criminal actions, or to the most serious mental alienation.

Injured affections, sufferings of the heart, are the

domestic troubles whose influence on suicide is among the most powerful—arising from ill-assorted marriages, from family discord, often from misery which irritates the temper, and is sufficient to extinguish every feeling of affection during the cruel trial which by means of privation it causes individual egoism to endure. Nor do ingratitude and indifference to relations fail to appear, nor the aversion awakened against people newly introduced into the family by marriage; nor is the now common pretext of 'incompatibility of temper,' under which lurks either a hankering after new sensual gratification or satiety of the old, destitute of foundation. Very many families have the germs of misfortune within themselves, based as they are upon ties thoughtlessly contracted, or formed with the usual improvidence of the middle classes, and all the more easily are these germs developed and matured when the ground is prepared for them by inheritance, alcoholism, passion, and libertinism.

And are not suicides through egoism those of overthrown ambitions, of speculators baffled in their hazardous enterprises, of those engaged in commerce and industries who have run the whole career from bad faith to downright dishonesty, from fraudulent crises to gradual collapse, or to violent death? It is useless here to insist upon this; it is modern civilization with its burning fever which, like Saturn in the fable, devours its own children. The supreme aim is the *excelsior* of vanity or of riches, but the road runs at the edge of the precipice, it grazes the keen edge of the criminal code, that his days may be ended at the door of an asylum or a prison, or the Morgue.

If there are suicides committed through fear of condemnation or from the desire to escape from a law process, from dishonour, from punishment, we must not flatter ourselves that they are dictated by a noble feeling. They

are the consequence of offended self-love, never from regret for having broken social laws; often they follow upon some serious crime, and they are not rarely those of monomaniacs. In any case can they be said to be exempt from egoism who are never free to choose between two evils, but of necessity incline to that which will cause them the least suffering? Dishonour, punishment, the remote probability of death by the hangman, exercise so painful an excitement and instinctive repugnance on the mind of man, as to determine him to choose as the lesser evil, death by his own hand; this deliberation, which in most cases evades the claims of society, is then the last sacrifice accomplished at the instigation of self-regard.

§ 3. *Influences which modify the nature of the motives.*

These influences are the same which are exercised on the general movement of suicides; namely, climatic and meteorological conditions, the degree of culture, sex, age, and profession. We will pass rapidly over the first, because the want of homogeneity of the statistics forbids our drawing precise deductions from them. Certain it is that whilst in the South passions, love and misery predominate; in the North alcoholism is the prevailing cause, and in the centre of Europe, where there is the highest culture, the chief causes are *tædium vitæ*, shame, and fear of punishment. Alienation of mind shows itself, as we have seen, in almost an equal degree, whatever climate is under consideration, whilst other causes, especially moral, vary according to the degree and particular kind of civilization. Thus where the domestic ties are closest and strongest, and where the man can find assured repose in the family in the struggles of life, as in Germany and Scandinavia, suicide

from domestic troubles is rare, whilst they increase in Catholic countries (Belgium, France, and Italy) on account of the lesser part taken by family affection in individual life.

The influence of season was considered by us when speaking of madness relatively to the months, and as for causes of a moral nature it would seem that destitution and domestic troubles especially cause most suicides in the warm months in Italy.

Of the social influences, that of religion deserves to be mentioned. The only Prussian statistics of 1871–72, although incomplete, were able to decide the causes of 1,622 suicides classed according to religion and sex. We give the proportions per 1000 for each principal category of motives.

The Influence of Religion on the Causes of Suicides in Prussia, 1871–72.

	Protestants		Catholics		Jews	
	M.	F.	M.	F.	M.	F.
Number of known cases	1,160	208	205	38	8	3
Per 1,000						
I. Mental diseases.	282	538	380	631	375	1,000
II. Physical diseases	96	77	59	105	—	—
III. Weariness of life	141	87	122	79	125	—
IV. Passions	35	58	29	53	125	—
V. Vices	118	24	127	53	250	—
VI. Suffering and affliction of all kinds	168	87	127	26	—	—
VII. Remorse, shame, and fear of punishment	138	120	127	53	125	—
VIII. Other causes	22	9	29	—	—	—
Total	1,000	1,000	1,000	1,000	1,000	1,000

In these few figures the Catholics (and the Jews) show themselves most inclined towards suicide through madness and vices, whilst Protestants yield the greater number to the passions, domestic troubles, financial disorders, remorse and shame, and to weariness of life, which agrees as to the first with their usual tendency to delinquency and to religious fanaticism; and as to the second, with their

high culture and greater morality. But, as is easily understood, much more evident are the differences which depend on individual conditions, and principally on sex and age.

The sexual differences (Table XXXVIII.) are owing, beyond the diverse physical and psychical constitutions of the two sexes, much more to the different system of life, to education, culture, and habits. Thus suicides occasioned by madness, delirium, pellagra and frenzy, preponderate in the feminine sex (see Table XXIII.), so much that in some countries, as in Italy, women offer a proportion double that of men; and in France out of 30,000 cases investigated by Guerry the average of the mad was 33·2 per cent., whilst among men only 29·1 and among the women 46·8 per cent. Besides, this special feminine priority is explained by the fact that the tribute paid by madness by the two sexes approaches much more nearly than that of the suicides. With regard to the types of alienation, the greatest difference is in pellagra in Italy, which is most frequent amongst women, about five per cent.; the other forms, even taking count of the undetermined, vary still less.

TABLE XXXVIII.—*Influence of Sex on the Determining Motives for Suicide.*
Per Hundred Suicides of Women and Men (*See* TABLE XXIII.)

PRESUMED CAUSES	Sweden 1852–55	Norway 1836–70	Prussia 1869–76	Saxony 1847–76	Würtemberg 1846–50	France 1866–75	Italy 1866–77
I. Mental diseases	371	190	233	217	520	241	217
II. Physical diseases	250	—	335	298	437	428	310
III. Weariness of life	0 w.	256	610	730	(443)	606	1,500
IV. Passions	200	261	161	208	233	152	208
V. Vices	1,563	4,233	2,081	1,728	—	1,053	3,100
VI. Domestic troubles	183	210	359	275	458	335	354
VII. Financial disorders	954	1,109	1,633	7,271	294	1,445	2,261
VIII. Misery			916	898		530	598
IX. Remorse, shame, &c.	289	293	347	412	169	488	498
X. Despair.—Unknown	1,040	316	688	643	(757)	563	314
Total average	455	320	408	389	440	397	346

As to other causes (physical and moral) the greatest excess of men is found in the group of vices, in that of financial embarrassments, and in weariness of life, that is to say, amongst the egoistical motives, whilst among women, after mental diseases, there predominate passions, domestic troubles, shame and remorse (especially in cases of illegitimate pregnancy). Among the causes which urge them to leave this life woman always exhibits that spirit of self-denial, that delicacy of feeling and of love, which inspire all her acts.

There is a group of causes where the feminine moral superiority becomes still more evident, and these are in the loss of husband and children, in the desertion of relations, in short in the least selfish feelings. Love also preponderates in woman, above all in Italy, Emilia, though in a less degree, being included; which last fact we note as contradicting the common idea that the intensity of this passion is greatest in the southern portion of the kingdom.

On the other hand, the prevalent supposition that the juvenile age would stand first among the number of suicides caused by love, jealousy, or illegitimate pregnancy, is confirmed by Italian and Prussian statistics (Table XXXIX. on the Influence of Age), the returns of which are in wonderful agreement. In the adult age the influences of financial embarrassments and of mental diseases are more felt, because as years increase so at the same time the passions are calmed, and man finds himself immersed in practical questions of existence; until in advanced years the weariness of living hastens death, both by will and deed (in Prussia, for in Italy suicides through *tædium vitæ* show no regularity).

The causes which lead children to commit suicide deserve attentive examination. They are like the painful

TABLE XXXIX.—*Influence of Age on the Causes of Suicide in Italy and Prussia.*
(*Proportions per* 1,000 *on the Actual Number at each Age.*)

AGE AND SEX	Number of cases per age	Mental diseases	Physical diseases	Weariness of life	Passions	Vices	Domestic troubles	Financial disasters and misery	Shame. Fear of punishment	Unknown or undetermined
				ITALY (1868–77)						
A.—MEN										
Under 15 years . .	36	138	—	28	—	28	250	28	—	528
From 15 to 20 years .	325	74	34	55	99	6	106	56	68	442
„ 20 „ 25 „ .	796	101	45	88	138	6	83	92	60	387
„ 25 „ 30 „ .	725	144	51	47	114	6	70	135	55	378
„ 30 „ 40 „ .	1,191	233	75	23	42	8	77	180	34	328
„ 40 „ 50 „ .	1,393	268	51	22	17	13	75	273	26	255
„ 50 „ 60 „ .	1,347	296	62	19	7	17	73	269	20	237
„ 60 „ 70 „ .	928	308	82	26	7	11	59	269	16	222
„ 70 „ 80 „ .	268	363	84	50	—	3	57	235	13	195
„ 80 and upwards	56	321	125	18	—	—	53	268	17	198
Age unknown . .	78	103	38	26	—	—	38	167	—	628
B.—WOMEN										
Under 15 years . .	10	300	—	—	200	—	300	—	—	200
From 15 to 20 years .	135	104	22	22	297	—	13	22	74	326
„ 20 „ 25 „ .	220	205	27	14	259	—	95	32	73	295
„ 25 „ 30 „ .	179	262	89	6	168	6	101	55	73	240
„ 30 „ 40 „ .	325	489	71	6	43	—	108	71	15	197
„ 40 „ 50 „ .	345	510	84	6	18	2	69	90	9	212
„ 50 „ 60 „ .	318	562	78	7	3	—	72	83	—	195
„ 60 „ 70 „ .	206	563	92	5	—	—	58	122	—	160
„ 70 „ 80 „ .	58	448	104	34	—	—	18	104	17	275
„ 80 and upwards	24	416	125	—	—	—	42	167	—	250
Age unknown . .	13	385	—	77	77	—	77	77	77	230
				PRUSSIA (1869–72)						
A.—MEN										
Under 15 years . .	120	117	—	25	42	8	67	8	300	433
From 15 to 20 years .	523	224	17	36	42	30	76	42	224	309
„ 20 „ 25 „ .	974	212	32	35	65	36	54	54	242	270
„ 25 „ 30 „ .	763	245	57	85	58	68	34	98	125	230
„ 30 „ 40 „ .	1,433	329	40	73	32	102	26	120	108	170
„ 40 „ 50 „ .	1,776	327	56	100	8	138	20	138	81	132
„ 50 „ 60 „ .	1,872	318	62	149	4	150	22	123	63	109
„ 60 „ 70 „ .	1,229	342	70	217	3	90	15	99	56	108
„ 70 „ 80 „ .	429	300	90	291	—	60	10	97	39	113
„ 80 and upwards	74	299	121	365	—	40	—	27	13	135
Age unknown . .	253	126	27	81	27	62	3	77	32	563
B.—WOMEN										
Under 15 years . .	22	91	45	—	—	—	45	91	409	319
From 15 to 20 years .	232	262	21	35	106	17	120	24	277	138
„ 20 „ 25 „ .	208	261	33	41	164	8	46	41	242	164
„ 25 „ 30 „ .	240	434	50	29	95	—	29	58	170	135
„ 30 „ 40 „ .	370	546	73	43	32	16	51	80	76	83
„ 40 „ 50 „ .	416	570	84	57	12	32	23	79	66	77
„ 50 „ 60 „ .	391	560	125	76	2	48	13	65	56	55
„ 60 „ 70 „ .	267	636	82	119	—	26	3	48	11	75
„ 70 „ 80 „ .	117	521	85	239	—	17	8	40	17	73
„ 80 and upwards	29	374	34	413	—	—	—	103	—	76
Age unknown . .	20	450	50	50	50	50	—	—	50	300

emotional susceptibility of adults, in proportion to the quality of their intelligence and their condition of life. Those who think that adolescents are urged on to this act by frivolous causes, err in the sense that these causes make as much impression on the mind, and excite the brain matter of a child as much as a strong passion in the case of a young man, or a chronic malady of an old one. The education which is now given to children assists the precocious developement of the reflective faculties, of vanity, and of the desires. It is true that the present method of teaching by abolishing brutal repressive means, intimidation, and threats, has removed one powerful cause of suicide of children (Ferrey, Collineau), but it appears that with the modern habits of life other influences grow in force, and puberty beyond all others, for it usually produces, along with power in the reproductive organs, changes in temper also, exaggerated sensibility, and a dominance of the new affections sufficient to silence the instinct of preservation.

Examining, then, the particular causes in the two sexes, we find that in man the proportions of mental diseases, of vices, and financial embarrassments, increase up to maturity and the commencement of old age (from 40 to 60 years of age), and then diminish in the state of decrepitude:—that physical diseases are regularly progressive from youth to late age:—that the passions, affliction for loss of relations, domestic troubles, professional failures, prevail by far the most in youth, particularly before 30 years of age:—highest of all under the age of 25 is the proportion of suicides through shame, remorse, and fear of punishment, or after crimes committed, while they decrease gradually as age increases. Let it be also noted that the average of weariness of life would be still higher among old people (Prussia) if we deducted the

suicides of soldiers (between the ages of 20 and 30) from disgust of military service.

Also amongst women the proportions of mental disorders increase up to the age of 70 and decrease in decrepitude. There is also a difference as to physical diseases, whose share augments regularly amongst men from the first to the last period of life, whilst among women it diminishes after the age of 60. The passions and domestic troubles are more sharply felt by woman in her youth, weariness of life in old age: vices such as drunkenness and debauchery are peculiar to women between the ages of 40 and 60; whilst the largest proportion of suicides through shame (chiefly illegitimate pregnancy) belongs to the young women under the age of 20, least able to resist seduction.

On distinct causes, according to the Registrar's returns (Table XL.), the numbers have, as might be anticipated, a high psychological meaning. In celibacy, men, beyond the harm through madness common to all ages and conditions, encounter grave dangers from remorse and fear of punishment, afterwards from weariness of existence, and women from shame of hidden pregnancy, from love and domestic troubles. In the conjugal state readiness to commit suicide through madness augments especially among women; amongst men financial embarrassments and weariness of life take the place of remorse, and vices replace the passions. The married woman shows a singular susceptibility to physical diseases, and naturally to family troubles or dissensions. The widowed of both sexes, besides a heavy proportion of suicides through madness, display a large number also through weariness of life, whilst vices acquire their highest influence amongst the divorced (Prussia), although they are powerful also in widowhood. Amongst divorced women the average

TABLE XL.—*Influence of the Civil Status on the Causes of Suicide in Italy and Prussia.*
(*Proportions per* 1,000 *on the Actual Numbers of each Registrar's Returns.*)

CAUSES	Unmarried		Married		Widowed		Divorced		Unknown	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ITALY (1872–77)										
I. Mental disorders	162	268	266	497	303	472	—	—	143	143
II. Physical diseases	59	59	74	89	59	60	—	—	53	—
III. Weariness of life	55	12	16	—	28	14	—	—	—	—
IV. Passions	77	199	7	10	21	14	—	—	—	—
V. Vices	8	—	11	2	9	—	—	—	—	—
VI. Domestic troubles	77	103	83	87	56	70	—	—	45	143
VII. Financial disasters	86	12	186	33	130	87	—	—	143	—
VIII. Misery	49	20	97	52	139	106	—	—	53	143
IX. Shame—fear of punishment	43	64	25	26	30	5	—	—	7	—
X. Diverse and not stated	384	263	235	204	225	222	—	—	556	571
PRUSSIA (1869–72)										
I. Mental disorders	276	330	304	589	302	569	209	393	88	400
II. Physical diseases	46	40	58	93	69	84	28	153	13	—
III. Weariness of life	81	49	117	55	224	147	209	30	65	133
IV. Passions	50	117	6	8	4	—	17	91	3	—
V. Vices	55	13	106	27	112	29	208	30	36	—
VI. Afflictions	8	3	3	7	13	14	—	—	—	—
VII. Embarrassments and suffering	57	36	150	84	88	49	113	121	39	—
VIII. Domestic troubles	37	60	20	11	9	6	17	—	3	—
IX. Shame—fear of punishment	163	205	79	58	62	29	113	152	26	—
X. Diverse and not stated	230	147	157	68	117	73	86	30	727	467
Total	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Number of cases, Italy	2,089	407	2,010	565	538	216	—	—	133	7
" " Prussia	3,160	842	4,367	975	1,318	485	177	33	308	15

of suicides through shame becomes again higher, perhaps on account of new illegitimate pregnancy, and the humiliating position in which separation from the husband places women in certain social ranks.

It would be worth while to examine what share trade and social condition have in creating determining causes for suicide. The Italian, French, and Prussian statistics would give us an opportunity for so doing, but we shall make use only of the first, as being those which keep separate the categories of professions in the most rational

way. The following are the numbers per 1,000 of the presumptive causes, according to the principal professional groups (see ch. V., § 4), calculated on the six years 1872–77.

TABLE XLI.—*Influence of the Professions on the Causes of Suicide in Italy during* 1872–77.

(*Proportions per* 1,000 *on the Actual Numbers of each Professional Category.*)

PRESUMED CAUSES	Production of raw material	Industrial productions	Commerce and transports	Domestic service	Defence of the country	Professions, officials, &c.	Proprietors, capitalists, &c.	Persons without any fixed calling	Dependent on others or without a profession	Professions unknown
A.—MEN										
Number of cases . .	1,073	1,143	505	116	409	591	493	188	147	113
I. Mental disorders .	458	154	133	163	64	159	227	181	177	71
II. Physical diseases .	71	66	71	26	34	71	97	42	41	18
III. Weariness of life .	17	22	20	43	134	27	41	16	61	18
IV. Passions . . .	21	41	32	52	71	39	42	22	88	53
V. Vices (drunkenness) . . .	5	16	8	—	5	5	8	37	14	—
VI. Domestic troubles .	57	82	53	95	56	90	124	80	75	62
VII. Financial troubles .	58	152	275	112	64	218	175	37	—	62
VIII. Misery . . .	92	122	73	35	—	34	31	228	190	70
IX. Shame—fear of punishment . .	20	28	18	43	68	59	30	27	14	9
X. Diverse and unknown . . .	201	317	317	431	504	208	225	330	340	637
B.—WOMEN										
Number of cases . .	449	210	13	72	—	11	104	40	277	11
I. Mental disorders .	581	367	385	125	—	91	385	225	297	454
II. Physical diseases .	69	67	—	56	—	—	67	100	101	—
III. Weariness of life .	5	5	—	14	—	91	10	—	7	—
IV. Passions . . .	29	09	77	222	—	363	48	25	90	91
V. Vices (drunkenness) . . .	—	5	—	—	—	—	—	—	—	—
VI. Domestic troubles .	80	95	—	125	—	182	135	75	83	—
VII. Financial troubles .	9	48	77	28	—	91	48	25	29	—
VIII. Misery . . .	51	52	—	14	—	91	9	175	79	91
IX. Shame—fear of punishment . .	13	33	—	69	—	—	19	75	32	—
X. Diverse and unknown . . .	163	219	461	347	—	91	279	300	282	364
Total . .	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000

First of all we always find a very marked sexual difference in the usual categories of causes, that is to say,

in mental alienation and the passions which preponderate in the feminine sex, in vices, financial embarrassments, and want, which are greatest in the male sex; the individual profession then does not appear to modify the influence of sex. But coming to a minute examination we find remarkable divergences even in particular professional groups. In both sexes the social class, which yields in the greatest numbers to the suicidal impulse through madness, is that which is devoted to the production of raw materials, that is, countrymen, shepherds, day labourers of the country, whilst a smaller number than all the others is given by suicides through love and weariness of life, financial embarrassments, and (speaking of well-defined professions) also through remorse and shame. Suicides through physical sufferings reach their maximum amongst the cultivated classes of society, whilst it seems the contrary ought to be the case, and those through drunkenness, on the other hand, are found amongst labouring people (porters, commissioners, day labourers), and amongst the operatives. Domestic troubles also are frequent in the highest classes, that is to say, amongst professionals and proprietors. With regard to suicides through money troubles and want, they are higher among the working classes, which is in agreement with the abuse of alcohol peculiar to that low class of society; then follow the superior ranks and tradespeople. The greatest inclination towards suicide through passion (love and jealousy) is found amongst the males in young students (dependent on others) and soldiers, and amongst women those who are schoolmistresses, teachers, and servants. It is also amongst women servants and labouring women that seduction and hidden pregnancy make most victims. The difference between the military and civilians with regard to *tædium vitæ* and fear of condemnation and of dis-

ciplinary punishment is noteworthy: thus in Austria (1851–57) the suicides amongst the military through these motives are more numerous than among civilians, whilst on the contrary, in Saxony (1847–58) and in Prussia (1869–75) those through remorse and fear of punishment and unfortunate love are more numerous.

It is seen from all this how much man in his actions depends upon the material and social atmosphere in which he lives, and how mistaken is the argument of those who pretend to justify suicide by the old Zenonian motto, '*Mori licet cui vivere non placet*,' by which our duties to society are silently passed over, and only individual interest admitted.

CHAPTER VII.

METHODS AND PLACES OF SUICIDE.

THE variety in the means for taking away one's life forms a characteristic of suicide as general and multiform as its average intensity, since the same influences which act on members of society to drive them on with more or less frequency to voluntary death, also makes them incline rather to one instrument of destruction than to another. The localities where suicide is committed are as much varied; hence the necessity for giving in statistics a distinct place to the twofold study of means and places.

For whoever wishes to shorten the course of existence will certainly not lack means in his natural surroundings. Nevertheless, amidst so many surrounding elements and forces so hostile to us, the suicide does not easily fix upon the first means which occurs to him; sex, age, race, profession, climate, and the causes of the fatal act enter into this last deliberation; nay, as many are the laws according to which the general tendency and counter-tendency to suicide is shown, as are those which regulate its mode and place of execution. Yet if there is a human act which seems in apparent relation with a free choice, certainly it is the preference given to an instrument for self-destruction; but statistics do not leave us long in doubt, in an aggregate of men of whom the physiological and moral conditions are constantly equal, the nature and number of

means of death are always the same, their choice belonging to the general stability of social phenomena.

§ 1. *General Laws in the Choice of Means of Death.*

Guerry was the first to demonstrate the regularity of this choice out of a considerable number of cases, who justly compared it with the annual distribution of births, marriages, and crimes. First of all may be taken into consideration that the choice always falls by preference on the same means of destruction, so that, amidst such a variety of dispositions, they remain limited to the following principally: drowning, hanging, fire-arms, wounds, poisoning, falls from a height, and asphyxia. The cases of suicide by other means, such as starvation, crushing, bruising, purposely induced diseases and infection, striking the head, through crucifixion, by falling into the fire, setting fire to one's clothes, splitting the skull with dynamite, swallowing hard or pungent bodies, or the swallowing of boiling water or oil, or of great quantities of brandy, are exceptional and scarcely ever registered in statistics. Each country certainly has its particular predilections, but in the aggregate of the peoples by whom suicide is practised, the rope appears to be chosen before every other instrument, and immediately after that water (both giving $\frac{5}{10}$ to $\frac{8}{10}$ of cases); fire-arms follow, then those arms which cut or stab; falling from a height is preferred to charcoal and poison, and lastly come all the other means. From this it may be inferred that in the choice of the means of death man is generally guided by two motives, *the certainty of the event* and *the absence or shortness of suffering*. When suicide is accomplished by very painful means or at the cost of prolonged agony, in ninety-nine cases out of a hundred it may be assigned as

the act of a mind disordered by fanaticism, by madness, or by morbid excitement. The terrible wholesale suicides of the Oriental populations, suggested always by pathological exaggeration of the religious feeling, are, as Wagner notices, the opposite to those accomplished with indifference, sometimes with coquetry, by the cultured European. It is true that the habits and civilization of a people cause the choice of means to vary, by exercising a kind of fatal coercion on the individual, so that, for example, in Russia, where carrying arms is subject to severe laws, and where the cold climate obliges one living within doors for almost the whole year, the suicide hangs himself by preference, whilst in Italy the hurtful facility for possessing arms, perpetual serenity of the sky, and the high temperature, give opportunity for the most frequent suicides by means of the pistol or by drowning. Taking into consideration all the means chosen, the constant dependence of man on the nature of his surroundings is seen, even in the death which he procures for himself by violence.

One important statistical fact is that the choice is constantly the same from year to year in a limited group of men, by which the modifying influence exercised by external influences on the human will is made still more evident. We might bring forward a large series of data in support of this law, because it is especially in extended and uniform numbers, such as the French, Prussian, and Saxon, that it can be verified; nevertheless, we will limit ourselves (also for want of space) to the figures only of a decennial or a quinquennial. In our Table XLII. we give the proportions per thousand of the methods of destruction chosen by English, French, and Italian suicides during ten years, of Prussians for seven, and Bavarians for four: *'the result would be the same even if the returns were for*

TABLE XLII.—*Regularity in the Choice of Means of Suicide.* (*Proportions per* 1,000 *without Distinction of Sex.*)

COUNTRIES AND YEARS	Hanging	Drowning	Gunshot wounds	Cutting and stabbing	Poison	Fall from height	Asphyxia	Railway	Otherwise
ITALY[1]									
Year 1868	179·8	318·8	247·4	65·3	40·8	107·1	21·4	10·2	8·9
„ 1869	151·6	270·1	319·1	55·3	50·5	112·1	22·1	9·5	9·5
„ 1870	196·7	327·4	219·5	45·7	43·2	126·9	12·9	14·9	14·9
„ 1871	154·3	313·4	263·1	69·4	44·2	114·8	21·5	14·3	4·7
„ 1872	182·0	337·0	226·9	50·1	60·6	95·5	17·9	14·6	14·6
„ 1873	185·7	329·1	226·6	46·1	60·5	115·9	14·3	17·4	5·1
„ 1874	174·3	305·4	236·4	56·0	60·1	106·4	13·7	33·5	13·8
„ 1875	173·5	273·3	251·6	57·4	62·9	104·2	31·4	26·0	19·5
„ 1876	125·9	246·1	285·1	57·7	69·3	113·5	29·3	21·5	11·1
„ 1877	176·4	299·7	237·9	59·6	55·3	111·5	22·8	23·7	13·1
FRANCE									
Year 1866	445	283	103	42	19	34	64	10	
„ 1867	460	273	99	42	23	31	61	11	
„ 1868	453	271	105	40	23	17	80	5	6
„ 1869	459	272	97	44	22	31	65	4	6
„ 1870	485	277	114	40	17	29	29	5	4
„ 1871	443	285	132	34	16	31	48	5	6
„ 1872	426	269	103	71	20	28	69	8	6
„ 1873	430	298	106	37	21	30	67	6	5
„ 1874	440	269	122	36	23	28	72	6	4
„ 1875	446	294	107	33	19	31	63	4	3
PRUSSIA									
Year 1869	599·7	213·7	100·1	36·5	32·3	6·6	3·1	6·0	2·0
„ 1870	621·2	189·7	95·9	44·3	37·6	7·1	4·8	6·4	3·0
„ 1871	628·3	182·5	101·4	43·6	21·0	6·6	3·3	12·2	1·1
„ 1872	610·7	197·2	102·5	41·3	25·7	6·9	3·0	10·9	1·8
„ 1873	597·0	217·0	94·9	37·0	25·4	8·4	4·6	14·2	1·5
„ 1874	610·7	162·6	126·5	33·8	28·0	9·1	6·5	21·8	1·0
„ 1875	615·4	170·2	105·3	34·8	35·1	9·5	7·7	19·5	2·2
ENGLAND									
Year 1867	371	173	43	204	103			106	
„ 1868	377	193	66	188	92	32	—	16	36
„ 1869	386	184	45	212	90	19	—	20	44
„ 1870	375	191	49	200	97	25	—	22	41
„ 1871	367	212	42	201	88	30	—	23	37
„ 1872	374	221	38	194	91	30	—	18	32
„ 1873	366	218	44	200	97	20	—	16	39
„ 1874	374	176	58	214	94	20	—	16	48
„ 1875	362	208	45	226	97			62	
„ 1876	364	216	47	199	99			75	
BAVARIA									
Year 1871	564	210	131	26	32			37	
„ 1872	544	189	109	32	30			36	
„ 1873	511	219	149	56	22			43	
„ 1874	514	201	155	36	26			38	

[1] The proportions of this table are calculated on the actual numbers registered in Table I.

fifty years, the truth of which is shown by the constant preservation through the longest periods of a preference given in a country to one fixed form of death. Thus in Italy drowning always takes the first place, along, however, with gunshot wounds, which in some years (two only) equal or exceed them; hanging always comes in the third place, and in the fourth falling from heights; wounds by cutting or stabbing and poisonings are so nearly equal that they contend for the fourth place through the same number of years; further removed but yet nearly equally, asphyxia by charcoal and crushing under a railway train are chosen. In France the order is still more regular and clear, the differences of the various methods of death being greater. They are in the following order: hanging, drowning, firearms, asphyxia, arms for cutting and stabbing, falls, poison, crushing by railway train. The Prussian and Bavarian returns serve us as an example for the countries where hanging much predominates; in both these German States the choice of means of death falls every year in the same order in which they are placed in the Table, from the first, which is the rope, to the last, which is asphyxia. As to England its series of figures is still more significant. From the important works published by Farr the annual proportion of suicides by each method of death per million inhabitants may be inferred, and so great is the uniformity and constancy of these proportions for the last twenty years (1858–76), that we think it opportune to collate them for the reader, and also because they prove better than any of our demonstrations the regularity of human actions.

In the midst, however, of the regularity of the general returns, some secondary phenomena of great significance are displayed. The first is the progressive increase of cases of hanging throughout almost the whole of Europe,

Regularity of the Choice of Methods of Destruction by Suicides in England.

Year	Annual average number of suicides per million inhabitants						
	Aggregate	Fire-arms	Cutting and stabbing	Poison	Drowning	Hanging	Otherwise
1858	66	3	13	6	10	30	4
1859	64	3	14	6	11	27	3
1860	70	3	14	8	11	27	3
1861	68	3	13	6	11	30	5
1862	65	3	11	6	10	30	5
1863	66	3	13	6	12	28	4
1864	64	3	12	7	10	27	5
1865	67	3	12	7	11	28	6
1866	64	3	13	6	10	25	7
1867	62	3	13	6	11	22	7
1868	70	5	13	6	14	26	6
1869	73	3	16	7	13	28	6
1870	70	3	14	7	14	26	6
1871	66	3	13	6	14	24	6
1872	66	2	13	6	14	25	5
1873	65	3	13	6	14	25	5
1874	67	4	15	6	12	25	6
1875	67	3	15	7	14	24	4
1876	73	3	15	7	16	26	6

only a few States being excluded. In France particularly, the rope is being substituted for other methods, as is verified in the figures of the last ten years, and as is seen still better in the proportional data of the two sexes (see *ante*). But similar increase in hanging is to be seen also in Sweden, Norway (up to 1865, then they cease), Denmark, Saxony, Bavaria, Baden, and England. There has been no increase in Würtemberg and Austria; in Italy and Prussia the choice of hanging is nearly stationary. In opposition to the increase in hanging, the suicides in France by drowning, and still more those by firearms, decrease. The method by asphyxia from charcoal, which was first peculiar to Paris, is now extending also to the departments, and even passes the French frontiers, so that in Prussia it gives signs of increasing every year. Another means, which seems constantly to augment, is the being run over by railway trains, as

the figures of Italy and Prussia bear witness, the which depends as much on the spirit of imitation, which has brought into use a rapid and sure means of death, as on the developement made in railways lately, which are always traversing new regions. The choice of poison increases sensibly in Saxony, Prussia, North America, and somewhat in Italy, whilst it decreases in Denmark and France, in proportion to the increase of hanging.

Other aspects of the regularity of moral phenomena are offered to us by the statistics of the means of destruction chosen by suicides, by distinguishing sometimes, as is done in England, the various kinds of poison used, or, as in Prussia and Saxony, the sort of wounds preferred. With respect to the first it is really worth noting the constant predilection which the English suicides show from year to year for the same poisonous substances, very rarely putting aside those most certain in their result, and less painful in effect. Observable also is the influence which the developement of the industrial arts has over the number and kind of suicides through poisoning, those poisons always being chosen by preference which are within easy reach of the suicide, so true is it that all classes of industrial workmen appear to have their predilection. In the meantime, in the aggregate of suicides which happened in England in 1863–74, the following poisons seem to have been always more used than any others: prussic acid, cyanide of potassium, laudanum, oxalic acid, arsenic, strychnine, the vermin killer, and oil of bitter almonds; whilst in the second and third places are always found caustic acids, mercury, preparations of opium and morphia, vegetable narcotics, phosphorus, and salts of copper. Lastly, though rarely chosen, come chloral, chloroform, paraffine, belladonna, ammonia, cantharides, salts of lead, zinc, and potassium. We give the

average numbers for two successive periods, and the actual numbers for seven years, 1868–74. Besides, wherever count is kept of the poisons chosen, there is always the same result; in Würtemberg, for example, cyanide of potassium, copper, phosphorus, oil of bitter almonds are preferred; and at Vienna, always in the same order, cyanide of potassium, salts of soda, phosphorus, morphia, sulphuric acid, chloroform, arsenic, opium, and chloral.

Poisons chosen by Suicides in England and Wales (1863-74).

Poisons	Yearly average		Yearly actual numbers						
	1863–67	1868–74	1868	1869	1870	1871	1872	1873	1874
Arsenic	5·8	4·6	7	3	3	6	5	5	3
Mercury	3·8	2·7	3	3	2	3	3	2	3
Opium	2·2	2·1	4	1	4	1	—	4	1
Morphia	0·6	1·4	3	1	2	1	1	1	1
Laudanum	20·2	21·8	28	15	21	9	20	37	23
Strychnine	6·0	10·6	10	9	7	13	15	11	9
Prussic acid Cyanide of potassium	24·2	24·7	14	24	39	23	20	30	23
Oil of bitter almonds	3·8	3·0	14	3	—	—	—	2	2
Oxalic acid	11·0	9·4	7	12	7	18	2	4	7
Sulphuric acid	4·0	2·1	3	1	3	1	3	4	—
Muriatic „	0·6	3·7	2	1	2	3	4	4	10
Nitric „	0·6	2·1	1	1	4	2	1	1	5
Carbolic „	—	5·1	1	1	5	10	4	8	7
Vermin killer	3·4	9·4	5	13	11	6	14	8	9
Aconite	1·4	0·6	2	—	—	—	1	—	1
Phosphorus	0·8	1·4	—	1	1	2	—	1	3
Chloride of zinc	1·0	1·0	—	3	2	1	1	—	—
Chloroform	0·4	0·4	2	—	1	—	—	—	—
Other poisons or not known	40·4	32·4	33	30	32	25	43	22	42

But not less constant is the kind of wounds by weapons of steel, as may be seen in the Prussian returns (1869–75), which here we quote :—

Wounds by Cutting and Stabbing effected by Suicides in Prussia.

	Proportions per 1,000 on the aggregate of Suicides						
	1869	1870	1871	1872	1873	1874	1875
A.—MEN.							
Wounds by stabbing	4·0	3·0	5·0	2·0	3·6	3·5	4·4
Cutting the throat	28·0	33·4	36·2	30·2	31·5	27·3	28·3
Opening veins	3·5	5·6	4·1	5·0	3·6	5·1	8·5
Wounds of the hypogastrium . .	—	1·0	—	0·8	1·3	0·8	0·4
B.—WOMEN.							
Wounds by stabbing	4·9	1·6	5·6	7·0	1·7	3·6	3·3
Cutting the throat	30·8	44·5	27·8	35·7	32·7	27·4	21·9
Opening veins	4·9	1·6	3·7	10·2	4·9	9·1	1·7
Wounds of the hypogastrium . .	—	1·6	—	1·7	1·7	—	—

Certainly, touching this regularity, it may be observed that it always accrues from man's tendency to protect himself from extreme or prolonged suffering, but this is also an inevitable and necessary consequence of the natural constitution of his nervous system, and of the conditions of the atmosphere that surrounds him, which being changed, the choice of instruments of destruction would also present itself to the suicide under another aspect.

§ 2. *General Influences which cause the Choice of Means of Destruction to vary.*

We will now consider briefly some of the influences under which the preference of the suicide falls rather on one mode of death than another, and, above all, those which are exercised by climate, race, and nationality, by the seasons, and by city life.

We have put together in one Table (Table XLIII.), the proportions per thousand of the methods of suicide chosen in the greater part of the European States during different periods to give proofs of what has been said on

the general returns of certain methods of destruction, and to study in them the influence of climate and nationality. These two elements, although different, are so linked together that they cannot be separately examined. It is truly singular that, even in this regard, the ethnological character of a people, and the geographical position of its habitation, exercise such power as constantly to determine men to the same acts; but by examining attentively the conditions of each country, the reason will soon be found for each marked preference for some method of destruction.

Drowning predominates among the violent deaths of Italy, but not so much so as in France; yet, if we take into account the diminution which is apparent in that means of death compared to the advancing use of the halter, the Italian proportion is found to equal, or even surpass, the French during the last ten years. The scarcity of suicides by drowning the nearer the North of Europe is approached is noteworthy. The Slav race is the one which shows less inclination than others to seek death by drowning, not only in Russia, but also in the Slav provinces of Austria-Hungary (Galicia, Buckovina, the Military Frontiers, and Slavonia). Where the Slavic race mingles with others, as in Transylvania (Slavo-Magyar), or in Bohemia and Moravia (Czech-German), suicide through drowning is somewhat more frequent, still always below that of any other country. Let us note, however, that in later times, even in Austria, suicide by drowning, especially amongst women, is seen to increase. In all the rest of Central and Northern Europe, death by drowning is chosen in nearly the same number of cases; in Belgium and Ireland, however, it is more frequent than in Germany and Scandinavia. Of the German countries, Saxony and Würtemberg have the

TABLE XLIII.—*Influence of Climate and Race on the Choice of the Mode of Suicide.*
(*Proportions per* 1,000 *without Distinction of Sex.*)

COUNTRIES AND PERIODS	Number of cases	Hanging	Drowning	Gunshot wounds	Cutting and stabbing	Fall from height	Poison	Asphyxia by charcoal	Otherwise
Russia . . . 1831	1,103	791	31	89	82	—	7	—	—
" . . . 1875	1,771	732	69	50	—	—	71	—	78
Sweden . . . 1851–55	926	443	231	55	74	5	80		112
" . . . 1865–70	(3,380)	475	221	86	93	—	102	—	24
" . . . (1862–76)	4,952	493	221	86	93	—	101	—	6
Norway . . . 1836–45	1,354	648	209	50			93		
" . . . 1846–55	1,517	642	223	49			86		
" . . . 1856–65	1,428	670	210	41	61	—	—	—	18
" . . . 1866–72	921	637	208	43	50	—	8	—	55
Denmark . . 1835–44	2,809	663	233	41	48	—	15	—	—
" . . . 1845–56	4,430	689	208	49	33	6	15	—	—
" . . . 1865–70	2,809	768	169	28	21	—	11	—	3
" . . . 1871–76	2,747	775	159	31	18	—	9	—	5
Ireland . . . 1831–41	588	392	252	80	126	—	150	—	—
England . . . 1858–64	9,211	435	163	44	192	—	99	—	67
" . . . 1865–70	8,687	385	179	49	198	—	96	—	93
" . . . 1871–76	9,490	368	208	46	206	—	94	—	78
Mecklenburg (Wagner) .	803	625	258	59	34	4	14	1	5
Prussia . . . 1869–72	11,822	611	197	102	41	7	26	3	13
" . . . 1873–75	9,179	608	182	109	54	9	30	3	5
Nassau . . . 1816–55	1,061	444	233	167	117	13	24	1	1
Saxony . . . 1847–56	4,521	615	245	86	36	7	6	—	5
" . . . 1857–66	5,742	653	246	71	27	6	9	—	18
" . . . 1867–76	7,414	651	195	81	26	6	17	—	24
Bavaria . . . 1844–49	1,711	497	239	183	58			23	
" . . . 1850–56	2,586	495	247	169	66			23	
" . . . 1857–71	5,654	547	208	155	43	—	19	—	29
" . . . 1871–74	1,720	540	204	151	37	—	30	—	28
Würtemberg . . 1846–60	2,626	680	218	26	49	11	13	1	2
" . . . 1860–69	(1,750)	630	158	127	38	9	12	—	6
" . . . 1873–75	916	640	151	146	34	21	18	—	12
Baden . . . 1835–40–43	445	483	180	184	126	—	27	—	—
" . . . 1864–74	2,318	539	176	177	56	11	19	—	22
Belgium . . . 1840–49	2,428	475	253	154	72	20	14	4	8
" . . . 1870–76	2,584	545	228	118	39	15	23	4	28
France . . . 1835–44	26,846	344	336	167	41	42	25	70	5
" . . . 1844–48	16,107	345	323	148	40	41	20	75	6
" . . . 1848–52	17,752	352	319	147	39	41	17	78	7
" . . . 1851–55	18,199	364	320	124	40	39	17	89	7
" . . . 1856–60	20,008	409	301	107	40	34	22	80	7
" . . . 1861–65	23,305	425	290	107	40	34	21	75	8
" . . . 1866–70	24,825	459	276	103	42	28	22	61	9
" . . . 1871–76	26,542	437	284	114	43	26	20	65	11
Cisleithan Austria 1873–77	13,907	474	244	148	—	—	85	—	49
Galicia-Buckovina 1851–54	1,438	786	85	79	39	4	3	2	2
Hungary . . 1851–53	1,756	609	150	138	67	3	28	1	4
Transylvania . 1852–54	448	732	109	103	34	—	22	—	—
Frontiers 1851, 52–54, 58–59	168	387	60	458	89	—	6	—	—
Switzerland . . 1876	540	430	267	170	67	11	33	13	—
Italy . . . 1866–70	4,382	166	300	258	62	122	53	19	20
" . . . 1871–77	5 965	169	300	244	55	113	61	22	36

greatest decrease of cases by drowning, and in Denmark among Scandinavian countries. In the aggregate of Europe, however, deaths by drowning come after those by hanging, except in the North of Russia. The preference given to drowning in southern climates, and especially in France, Italy, and Spain (of which, to tell the truth, we possess only incomplete data), shows how, even in his self-destruction, the suicide adapts himself to the place and season. This is certainly not the only reason of the phenomenon, but there is an undoubted relation between the annual average temperature and the number of deaths by drowning. Perhaps the hydrography of the region has some influence over it, but Russia, Croatia, and Galicia are not wanting in a wide extent of coasts, of rivers, and lakes, where to end a troubled life. But in making the choice, as we saw before, the preference is given to the least painful method, and for the most part those methods which arouse too startling sensations are put aside. In cold countries water cannot but excite an instinctive repugnance in the suicide, the sensation made by it upon the body, especially in the winter season, being much more painful than what may be expected from a slow asphyxia produced by hanging or by charcoal, or by a pistol shot.

Hanging and strangling would appear to act in an inverse ratio to drowning; and, indeed, Italy is amongst all nations that where hanging is more rarely chosen, and where drowning, on the other hand, is selected in the third of the number of cases; in Russia, on the contrary, where drowning is so rare (hardly 6·9 per cent.), hanging is the usual means, being preferred by about *four-fifths* of the suicides. It is strange that the Slavic race always offers us some special characteristics, so that, even among the means of destruction, wherever it exercises its

influence or penetrates among other ethnological elements, the number of voluntary deaths by hanging is larger than all others. Thus we find that the Transylvanians and Galicians have the same predilection for hanging as the Russians. For if the Slovano-Croatians of the Austrian Military Frontiers are an exception, that is explained by the substitution of suicide by firearms instead of by hanging. We have therefore seen that almost throughout Europe hanging is preferred—perhaps for economy! but it is in Denmark that it increases most, and there its last proportion is even greater than the last returns of Russia. Amongst the Scandinavians suicides by hanging exceed those of the Germans, English and Celto-Latins, Sweden excepted, where poisoning is at so high a rate as to reach a third. The proportion of hangings is uniform in the Germanic States, but it is highest of all in Saxony, lowest in Nassau and Bavaria. The German element, which enters into part of the Belgian population, may explain its greater predilection for hanging compared to that of the French.

The pre-eminence in suicide by firearms occurs in the South of Europe, although at the head of all the countries come the Austrian Military Frontiers, and then Italy. France and Germany hold an intermediate place, and lastly come the northern regions, Denmark, Russia, Sweden-Norway, and Mecklenburg. Some German States of the centre (Saxony and Würtemberg), on the other hand, are, or at least were, for some time little inclined to choose firearms. Wagner justly observes that to render suicide by this means more frequent the military element must have special influence, and the proof of this is in the high proportion given by the Military Frontiers, whose population was organised by Prince Eugene in the seventeenth century in a kind of perpetual encampment

against Turkish invasion; hence the use of firearms is there so usual as to be preferred even by women in cases of suicide.

There is less to be said on other means of self-destruction. Cutting and stabbing arms offer no conspicuous difference in the different States; only their number is rather large in Ireland, in Baden (up to 1843), and in Nassau, whilst it is very small in Saxony and Denmark. The highest proportion by wounding is in England. Of the Celto-Latin countries Italy gives a higher number of suicides by steel weapons than France. But it is in falls from heights that Italy shows so extraordinary a divergence from the rest of Europe. We already noticed in other southern countries, as France, Belgium, and Würtemberg, a high return in this category of violent deaths, but yet the French average is scarcely a third of the Italian, and those of Baden and Würtemberg about a fifth. In the North suicides by falls from a height are few, perhaps for several reasons; the feeling of modesty and domestic habits are so vivid as to shrink from a kind of death which exposes the dead body of the suicide to public gaze, whilst also in cold countries the low houses, generally consisting of one floor, do not give opportunities for precipitation from a height, at least in many towns.

Poison, also, is, like stabbing, in great use in England and Ireland, whilst it is rarely adopted in France or in any of the German States; Italy holds a middle place between the two extremes. In France, instead of poison, fashion has spread the use of suffocation by charcoal, this chosen mode of romances and of the daily papers. After the French, the second place of asphyxia by charcoal belongs to Italian suicides, the third to the Swiss, the fourth—but in much lower proportion—to the Belgians; in which fact may be seen the similarity of habits and ideas in

neighbouring nations, as well as the influence exercised by France over Italy in our times. The latter is as ready to accept French fashions as are the German and Scandinavian countries to oppose them, where suffocation by charcoal reaches scarcely 3 per 1000 in Prussia; nevertheless, even here that mode seems to gain footing every year.

Under the head of national specificness in the means of suicide, the persistence of ethnological characteristics now stated is remarkable amongst those who immigrate from Europe to America. According to the statistics of the city of New York in 1876 the suicides of non-Americans were distributed in the following way:—

Per 100 (1876)	English	French	Germans	Irish
Poisoning	46·1	25·0	28·9	52·4
Hanging	—	12·5	17·4	4·8
Asphyxia and drowning	—	—	5·7	9·6
Gunshot wounds	15·4	50·0	35·0	4·8
Cutting and stabbing	30·8	—	7·2	9·5
Falls from heights	7·7	12·5	5·8	18·9
Total	100.0	100.0	100.0	100.0
Actual number	13	8	69	21

Thus, even away from their own country, the English and Irish preserve their predilection for poison and the pistol, whilst the German always retains his pre-eminence in hanging. But we also see how much the customs of the place to which they emigrate transform the old European habits, by observing how the choice of poisoning becomes more frequent amongst the French and Germans dwelling in America, because poison is a means of death preferred among Anglo-Saxons and North Americans (40·8 per cent.).

Still better known is the influence of some social conditions, amongst which the most powerful is town life (Table XLIV.). Grave divergences exist between

TABLE XLIV.—*Influence of Town Life on the Choice of Mode of Suicide.*
(*Proportions per* 1,000 *of some large towns.*)

CITIES AND PERIODS	Number of cases	Hanging	Drowning	Firearms	Cutting and stabbing	Fall from height	Poison	Asphyxia	Otherwise
Paris . . 1817–25	—	101	367	144	200		188	—	—
„ . . 1834–43	4,595	172	214	126	44	94	34	312	4
London . . 1846–50	1,201	349	143	44	232	35	197	—	—
„ . . 1872–76	1,396	254	208	61	241	—	154	—	82
Berlin . . 1852–63	600	463	202	172	35	23	92	8	5
Vienna . 1871–72, 77	500	358	56	222	74	64	216	4	6
Petersburg . 1858–67	248	427	120	105	—	—	—	—	348
„ . . 1873–74	275	284	316	167	—	—	—	—	233
Brussels . . 1876–77	99	424	192	142	90	30	111	11	—
Stockholm . 1861–66	258	442	171	131	81	4	105	—	66
„ . . 1867–72	278	475	191	180	43	—	104	—	7
Copenhagen . 1845–56	—	496	281	86	79		58	—	—
„ . . 1864–73	583	698	161	—	—	—	—	—	141
New-York . 1876	148	135	68	331	108	34	317	—	7
Prag 1869–70, 74–76	232	267	159	246	52	26	246	—	4
Frankfort 1853–56, 60	112	428	98	330	90	18	36	—	—
„ . . 1867–76	310	406	187	268	39	23	58	—	19
Chemnitz . 1871–76	110	491	191	200	36	—	82	—	—
Geneva . 1838–47, 53–55	204	156	229	332	93	68	49	39	34
Rome . . 1877	27	—	74	408	148	259	74	—	37
Basle . . 1876	23	217	173	391	88	43	—	—	88
Milan . . 1821–32	270	107	374	115	259	81	64	—	—
„ . . 1877	52	58	192	327	96	96	116	77	38
Turin . . 1855–59	108	37	140	333	—	—	—	111	379
„ . . 1877	33	—	121	242	61	303	182	61	30

State and State in the larger towns, especially as regards suicide by hanging. At Milan, Rome and Turin, at Paris, New York and Geneva, the cases by hanging are very rare, whilst the less ignoble, and, we may almost say, the most civilized of suicides, such as by firearms, poisoning, asphyxia by charcoal, grow more frequent. At Petersburg hanging is not so much preferred as in the rest of the Russian Empire; at Copenhagen, also, deaths by hanging were much more rare than in all Denmark, and are so still, though with a smaller difference. Stockholm alone of the great northern cities makes an exception, because the proportion of these suicides here maintain an equality with that of Sweden. Drowning also dimi-

nishes in almost all the large cities, excepting those traversed by rivers, as Paris, London, and Petersburg. The great difference between this last capital and the rest of the kingdom, which amounts to almost a *fifth* in suicides by drowning, is worth noticing.

Some large cities show a special predilection for determined means of suicide. In many the choice falls, in about a third of the cases, on firearms (New York, Frankfurt, Geneva, Rome, Basle, Milan, and Turin), in others (London, Milan, Rome), cutting and stabbing take an exceptional share; in some (New York, Prag, Vienna, London and Paris, 1817–25), poisoning seems to be preferred in a third, or at least a fifth, of the cases. Perhaps the great spread of industries accounts for the choice of poisonous matters; certain it is that in these places there are much more marked characteristics than are those of the whole countries. Nor must the influence which great capitals also exercise on the mode of suicide be forgotten; Paris, for example. For Paris, Devergie found that in the period, 1827–36, drowning and asphyxia by charcoal held the second place; but already, in 1851, Trebuchet was obliged to modify the order of the means of destruction by placing asphyxia at the head.

Subsequently to these dates the cases of death by asphyxia went on multiplying, not only in Paris, but in the whole department of the Seine, and hence by imitative instinct and irradiation of the great metropolis to all the northern departments. From thence asphyxia spread to the western and southern regions of Europe, so that Turin and Milan, which, on account of the culture and intelligence of their inhabitants, the developement of industry, the vigour of their artistic and scientific institutions, more than the other Italian towns resemble the large foreign cities, are also those where the mode of death

by suffocation finds most followers. It is, indeed, the least painful kind of death, and is surrounded by a certain ideal charm by romantic literature and the unhealthy notoriety given by newspapers. Moreover, it must not be forgotten that the corpse of the asphyxiated is not disfigured, so that very often among suicides, especially if they are women, the idea prevails of leaving the appearance of their body intact, and not of a disgusting aspect; strange paradox of human vanity!

But continuing the investigation of the influence of citizen life, its force may be ascertained as compared to the modes of death chosen in the country. Provided that the country population does not feel the feverish activity of great cities through their too near neighbourhood, it offers marked differences from that of the city. Those who die by asphyxia, most numerous in Paris, are also numerous through the whole department of the Seine, so much so that in the two years, 1874–75, for example, their average rose to 195, or 52 per cent. of the suicides by asphyxia in the whole of France. Generally in the country, and above all when not near great cities, hanging and drowning predominate, at any rate in France, Denmark, Norway, Italy and Ireland, whilst cases of death by firearms, stabbing and cutting, and by poison, are rare. The Danish and Norwegian returns are of particular interest. In Denmark the suicides in the country show a marked preference for hanging, whilst, on the contrary, the proportions of all the other suicides (by poison, firearms, falls from heights, and wounds), differ much from those of the towns, and the regularity with which the divergence increases in the capital, compared to other centres, is curious. We put together the following data per 1,000 of two successive periods, the first for

1845–56, taken by Kayser, the second for 1864–73, computed by us from official publications:—

DENMARK, 1845–56	Hanging			Drowning			Otherwise		
	M.	F.	Av.	M.	F.	Av.	M.	F.	Av.
Copenhagen	564	314	496	230	417	281	206	269	223
Other towns	691	397	624	176	517	253	133	86	123
Country	795	577	741	124	367	185	81	56	74
DENMARK, 1864–73									
Copenhagen	774	425	698	103	370	161	123	205	141
Other towns	781	490	713	126	458	203	93	52	84
Country	838	623	788	112	344	166	60	33	46

In Norway the influence of town life is not so great, for, excepting Christiania, which has 77,000 inhabitants, it has no other important centre (Bergen, the second city of the kingdom, has 34,000 inhabitants, the other towns generally have less than 10,000). The difference between town and country is nevertheless equally evident, especially with regard to suicides by firearms and poison. We give the proportions per 1,000 of four recent periods:—

NORWAY	Drowning		Hanging		Firearms		Cutting and stabbing		Poison, &c.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1856–60										
Towns	164	375	680	469	63	—	47	125	46	31
Country	178	319	696	590	48	—	64	77	14	14
Kingdom	175	329	692	569	51	—	60	85	22	17
1861–65										
Towns	161	400	729	333	68	—	34	67	8	200
Country	184	296	711	579	44	21	47	97	14	7
Kingdom	179	306	715	556	49	19	44	94	13	25
1866–70										
Towns	115	355	711	516	87	—	29	65	58	64
Country	212	325	668	556	45	8	55	55	20	56
Kingdom	192	331	677	548	54	6	50	57	27	58
1871–72										
Towns	125	375	554	437	107	—	36	63	178	125
Country	171	271	650	500	36	—	57	21	86	208
Kingdom	158	297	622	485	56	—	51	31	112	187

The same thing happens in Italy. It is true that the statistics for 1877 alone have begun to keep the suicides of the rural communes distinct from the cities, yet the annexed figures show a still greater difference with respect to certain means of destruction than in the countries now cited. Here are seen the proportions per 1,000 for the two sexes:—

ITALY, 1877	Capital of the province		Other urban communes		Rural communes		The kingdom	
	M.	F.	M.	F.	M.	F.	F.	F.
Drowning	184	473	171	552	322	521	247	513
Hanging	81	18	85	35	266	321	170	210
Firearms	333	37	402	69	213	43	285	45
Cutting and stabbing	70	18	52	35	77	7	71	14
Poison	92	109	51	103	21	36	53	62
Fall from height	173	309	119	171	47	50	107	129
Asphyxia	42	—	26	35	12	7	26	9
Crushing under railway trains	19	18	77	—	21	7	27	9
Other or unknown causes	5	18	17	—	21	8	14	9

As might be imagined, the greatest divergences are in the deaths by hanging, which is preferred in the country, and in poisoning, falls from heights, and asphyxia, in which cities hold the first place. In deaths by firearms and crushing under railway trains, the predominance of the city centres is quite as evident.

In the geographical distribution, also, of modes of death we meet facts of high interest, because in one and the same country most conspicuous differences are to be found, due to diversity of race, culture, hydrography, density of the population, and of moral character. Italy will answer admirably for such a study. It may, for example, be observed that those who die from asphyxia are found principally in the provinces which have populous chief towns, as Bologna, Florence, Milan, Genoa, Turin, Perugia, &c. In the same provinces suicides by firearms are likewise frequent, as also at Rome and Naples, perhaps because the military of the garrison contribute

many. Falls from heights cause many violent deaths in provinces with large centres, which is natural if we think of the facility with which the citizen can throw himself down from the high houses, whilst in the country death by hanging or drowning is more common. In certain cities which possess high monuments accessible to the public, there have been real epidemics of suicides by falls, for example from the Duomo of Milan, St. Peter's at Rome, and from the Campanile of Giotto at Florence.

The hydrography of various regions influences the choice of death by drowning, whilst the state of culture augments the deaths by suffocation by charcoal. There are many more suicides by water in provinces which have no great towns than in the others, excepting Milan and Venice, where the vast system of irrigation of the Lombard plains and the lagunes invite the suicide to make such a choice. It is most true that pellagra acts in the same way in most of these provinces, but Florence, Genoa, Leghorn, Naples, Rome, Palermo, Turin, and Messina offer, by reason of their position on rivers or on the seashore, as great facility for drowning; on the other hand, they furnish very few suicides by firearms, and proportionately still fewer of those by poison and asphyxia.

As an example of studies on the diversities of the methods of death relatively to the divisions of a State, we have gathered in a table the proportions per thousand of the territorial divisions of two countries very different in climate, race, and character of civilization, namely, Italy and England (Table XLV.). In Italy the choice of means of destruction is not uniform. Most noteworthy is the high number of suicides by cutting and stabbing in Calabria, whose inclination to crimes of blood is known. The proportion of deaths by firearms is equally high in all the South of Italy, in Sardinia and Latium.

TABLE XLV.—*Methods for Self-Destruction Chosen in Italy and England, according to Separate Territorial Divisions.*
(*Proportions per* 1,000 *of each mode of Suicide.*)

DIVISIONS	Number of cases	Drowning	Hanging	Firearms	Cutting and stabbing arms	Poison	Asphyxia	Fall from height	Railway	Otherwise or unknown
ITALY (1866–76).										
Piedmont	1,145	245·4	183·6	270·7	57·6	48·9	27·0	121·4	37·6	7·8
Liguria	439	125·2	86·6	271·0	63·8	68·4	40·9	298·4	27·3	18·3
Lombardy	1,584	321·5	168·5	215·3	65·0	68·2	38·8	91·6	23·5	6·6
Venetia	1,079	437·4	233·6	147·4	52·9	43·6	15·8	61·1	2·7	5·5
Emilia	1,535	421·4	175·2	198·7	46·3	39·1	10·5	75 5	27·4	5·8
Umbria	195	297·4	199·9	205·1	20·5	97·5	30·8	128·2	15·4	5·1
Marches	356	269·4	143·2	280·9	61·8	78·7	2·9	148·8	8·4	5·7
Tuscany	988	217·6	207·4	235·8	61·7	55·6	23·8	176·0	15·1	7·0
Rome	175	205·8	57·1	388·6	51·4	68·7	17·2	159·9	11·5	39·9
Abbruzzi	216	236·1	148·1	361·3	83·3	41·7	4·6	97·2	9·2	18·0
Campania	488	178·2	84·1	356·6	65·6	62·5	6·2	242·6	2·1	4·1
Apuglie	235	433·4	55·2	276·1	53·0	89·1	17·0	68·0	—	8·2
Basilicata	68	147·0	161·7	441·2	58·9	41·2	—	132·3	—	14·7
Calabria	106	122·6	47·2	575·4	122·0	9·5	—	84·2	—	28·3
Sicily	504	216·3	144·9	376·9	45·6	111·2	5·9	65·5	—	33·7
Sardinia	95	189·4	178·8	484·2	42·2	10·6	10·6	10·6	—	73·6
ENGLAND (1872-76).										
London	1,396	209	254	61	240	154	82			
South-Eastern C.	925	199	358	77	199	70	97			
South-Midland	476	231	334	49	231	42	113			
Eastern C.	424	224	403	64	160	57	92			
South-West	525	227	401	53	223	48	48			
West-Midland	876	208	369	34	206	101	82			
North-Midland	552	163	442	25	178	123	69			
North-West	1,187	210	421	36	192	98	43			
Yorkshire C.	881	227	382	27	219	103	42			
Northern C.	436	190	443	34	179	92	62			
Welsh C.	299	167	408	40	167	37	181			

Taking, then, into consideration the aggregate of the numbers, it is perceived that the use of the pistol is in inverse ratio to the deaths by drowning, because the north of Italy has the pre-eminence in deaths by drowning, partly on account of its extended irrigation by rivers and canals, and partly on account of pellagra. Asphyxia, and crushing under railway trains, give room for similar considerations. Suicide, according to the Parisian mode, is

peculiar only to the northern divisions, whilst in the centre and south its proportion becomes less, failing entirely in Calabria and the Basilicata; thus, it will preponderate in Liguria, Lombardy, Piedmont, and Tuscany. Death by crushing under railway trains is naturally peculiar to the north, because of the wider extension of the network of railways, and in fact it is seen that the region which is best supplied with them, namely, Piedmont, holds the first place. We also find the low numbers of deaths by drowning, and the large number by falls from heights in Liguria, worth notice: nevertheless in that province the greatest number of suicides are through drunkenness, and it is surprising that, owing to its sea coasts, the choice is not made of drowning. Venetia gives the largest number of deaths by hanging. Would it be too bold to perceive in this a remote influence of race, knowing that hanging is preferred by the Slavic populations, and the ethnological chain draws the Venetians very close to that stock?

In the English returns, which after all do not show any great divergences in the various regions, the fact of the prevalence of deaths by poison in the industrial districts, as in Yorkshire, the North-Midland counties, and the capital, is noteworthy. London also shows a very high proportion of suicides through stabbing or cutting, whilst it shows the minimum by hanging.

§ 3. *Individual Influences which cause the Choice of Methods of Destruction to vary.*

The first and strongest of individual influences, even on the choice of the instrument of death, is that of sex. Habits of life, sensitiveness, the education of women give them in every country a preference for those special

means of destruction, amongst which drowning and poison hold always a higher place than in the returns of males. Still it would here be vain to repeat that the choice made by the two sexes offers everywhere a marvellous stability and constancy, in agreement with that of the general movement of suicides. We should quote from the interminable series of figures if we wished to prove the regularity of this sexual characteristic of suicide in all countries, whose official publications are before us. Whoever desires to inform himself on this question may seek confirmation of it in the French returns of Blanc, Lisle, Wagner, and Oettingen; those of Engel and Guttstadt in the Prussian; of Keyser in the Danish; of Böhmert in the Saxon; of Sisjeström in the Swedish; of Maestri and Bodio in the Italian returns, and so on. We will content ourselves with giving a synopsis of the English figures for the decennial 1865–74, and although they are not amongst the most regular, and do not take into account all the means of self-destruction, yet the constant repetition year by year of the same sexual differences may be seen (Table XLVI.). It may be said that the greatest divergences in England between men and women are in the use of firearms, drowning, and poisoning; since about a *third* of the women, and hardly a *seventh* of the men seek death by drowning; whilst a *seventh* of the suicides of women happens by means of poison, and only a *fifteenth* among men. And, as to firearms, those women who use them in England are rare exceptions, very different in this respect from the Swiss, Croats, and Italians. The preference of the stronger sex extends to cutting and stabbing, as well as to firearms, but the sexual difference is smaller. Hanging is also more frequent among men. We may add that a constant difference is seen also between the sexes in falls from heights, and crushing under

TABLE XLVI.—*Influence of Sex on the Choice of Methods of Suicide. Regularity of this Choice both in Sex and Year by Year in England and Wales* (1865-74).

(*Proportions per* 1,000.)

YEARS	Number of cases	Hanging	Drowning	Firearms	Cutting and stabbing arms	Poison	Otherwise
MEN							
Year 1865	974	473	136	54	206	68	63
„ 1866	993	455	124	64	195	88	74
„ 1867	963	399	139	59	209	86	108
„ 1868	1,117	405	151	89	204	65	86
„ 1869	1,178	426	136	61	226	68	83
„ 1870	1,160	395	157	64	221	74	89
„ 1871	1,103	406	157	57	223	67	90
„ 1872	1,095	426	170	52	208	66	78
„ 1873	1,129	399	170	59	223	74	75
„ 1874	1,204	392	149	76	221	77	85
WOMEN							
Year 1865	345	293	328	9	162	159	49
„ 1866	347	323	236	3	159	193	86
„ 1867	353	295	266	—	190	147	102
„ 1868	391	297	312	3	143	166	79
„ 1869	409	269	323	—	173	152	83
„ 1870	394	317	292	2	140	165	84
„ 1871	392	255	367	—	140	146	92
„ 1872	419	239	356	—	157	157	91
„ 1873	389	272	355	—	136	162	75
„ 1874	388	322	260	5	191	144	78

railway trains; the former being proportionally more frequent amongst women, the latter, on the contrary, much more so amongst men. It may be objected that the regularity here also depends on the moral conditions of society not being modified, and that the tendencies and their opposites, under which the individual will acts, shall remain equal; but it seems to us that we have sufficiently cleared up the sophistry of this argument, as we examine elsewhere the principle of physiological determinism that 'human actions *must* happen in a regular and uniform way, when the numerous influences by which they are determined *do not vary*.'

The examination of sexual divergences in various countries and races succeeds in establishing still more firmly this opinion (see our Table XLVII.). Woman manifests everywhere the characteristics of her psychical individuality by the pre-eminence she holds in deaths by drowning. The greatest difference between the two sexes is always in the use of firearms, because in every country woman has little tendency to make use of violent means, and thus it is that hanging also is chosen by her much less often than by men. Domestic habits alone account for the somewhat high average of suicides by voluntary falls and poisoning.

Coming now to more minute examination, we find that those who exceed others in hanging amongst men are the Danes, Russians, inhabitants of Würtemberg, and the Austrians; amongst women Russians, with a number equal to the men, the Slavo-Croatians of the Military Frontiers, the Austro-Hungarians, and the Scandinavians. Hence it is evident that in woman the Slavic origin betrays itself in a strong tendency towards hanging. On the other hand, drowning is at its *maximum* amongst the Celto-Latin nations, France, Italy, Belgium, and in Sweden and Switzerland; whenever the Slavic element comes into play the choice of water falls to its *minimum*. The largest proportion of suicides by firearms is that of the Sloveno-Croats of the Frontiers, and it is to be remarked that even the numbers among the women are equally above the average. As to poisoning its highest proportion is found amongst Swedish and Austrian women.

Comparing, then, two nations allied in language, race, and customs, as France and Italy, we find they have minor, but always constant divergences. The difference in the use of firearms between French and Italian

TABLE XLVII.—*Influence of Sex combined with Climate and Race on the Choice of Methods of Self-destruction.*

(*Proportions per* 1,000 *of the Two Sexes.*)

COUNTRIES AND PERIODS	Number of cases	Hanging	Drowning	Firearms	Cutting and stabbing arms	Fall from height	Poison	Asphyxia	Otherwise
MEN.									
Russia . . 1875	1,408	730	69	61	—	—	68	—	72
Sweden . . 1870–74	—	527	191	112	92	8	70	—	—
Norway . . 1856–65	1,092	703	177	50	52			18	
,, . . 1866–72	697	664	184	54	46			52	
Denmark . . 1845–56	3,324	748	146	64	28	4	9	—	—
,, . . 1865–74	3,585	825	111	37	18	—	6	—	3
England . . 1863–67	4,905	448	130	59	201	15	74	—	73
,, . . 1868–74	7,985	407	155	66	218	19	70	—	65
Prussia . . 1869–72	9,450	652	143	127	40	5	17	2	14
,, . . 1873–75	7,426	648	131	133	40	8	20	1	19
Saxony . . 1847–56	3,575	657	179	108	40	5	5	—	6
,, . . 1857–66	4,521	701	154	90	27	4	6	—	18
,, . . 1867–76	5,995	605	136	100	26	4	14	—	25
Würtemberg . 1846–60	2,138	736	157	32	52	9	11	1	2
Belgium . . 1870–76	2,189	563	198	139	42	13	15	3	27
France . . 1840–44	10,796	345	295	203	48	33	21	51	4
,, . . 1848–52	13,543	376	276	190	43	34	14	59	8
,, . . 1851–65	47,325	435	260	144	44	29	16	64	8
,, . . 1866–75	40,721	480	242	135	42	24	16	49	12
Switzerland . 1876	474	458	228	188	70	9	25	13	11
Austria . . 1851–58	—	713	62	127	62	7	29	—	—
,, . . 1859–65	—	677	58	164	56	6	39	—	—
,, . . 1873–77	11,429	506	208	172	—	—	66	—	48
Frontiers . 1851, 52–54	130	308	38	562	85	—	7	—	—
Hungary . . 1851–53	1,404	615	108	167	77	4	24	1	4
Italy . . . 1866–77	8,253	166	250	305	63	110	53	20	33
WOMEN.									
Russia . . 1875	363	730	67	8	—	—	86	—	109
Sweden . . 1870–74	—	443	288	5	80	7	177	—	—
Norway . . 1856–65	336	562	319	9	89			21	
,, . . 1866–72	214	547	332	5	98			18	
Denmark . . 1845–56	1,106	513	394	1	49	11	32	—	—
,, . . 1865–74	1,071	583	359	—	26	—	26	—	6
England . . 1863–67	1,791	298	266	5	169	30	175	—	57
,, . . 1868–74	2,782	281	324	1	155	38	156	—	45
Prussia . . 1869–72	2,372	448	411	4	46	14	62	8	7
,, . . 1873–75	1,753	440	399	8	36	13	70	10	24
Saxony . . 1847–56	946	457	492	—	24	12	10	—	5
,, . . 1857–66	1,221	470	448	2	29	14	20	—	17
,, . . 1867–76	1,119	463	446	1	28	12	29	—	21
Würtemberg . 1846–60	488	458	441	—	60	20	21	—	—
Belgium . . 1870–76	395	447	395	2	26	23	70	7	30
France . . 1840–44	3,629	271	472	9	25	64	31	126	2
,, . . 1848–52	4,209	272	457	7	27	62	29	139	7
,, . . 1851–65	14,185	293	442	6	27	56	34	137	5
,, . . 1866–75	10,660	323	421	7	40	50	37	115	7
Switzerland . 1876	66	228	546	45	45	30	91	15	—
Austria . . 1851–58	—	575	256	8	68	11	82	—	—
,, . . 1859–65	—	550	216	18	63	19	134	—	—
,, . . 1873–77	2,478	324	410	38	—	—	176	—	52
Frontiers . 1851, 52–54	38	661	133	103	103	—	—	—	—
Hungary . . 1851–53	352	556	312	17	68	—	42	—	3
Italy . . . 1866–77	2,094	175	494	34	34	145	79	24	15

women is very great, for of the former there are hardly 6 per 1,000, whilst the latter reach 35 per 1,000. Another difference is in regard to the more frequent use made by Italian women of poison, whilst on the contrary, of suicides by asphyxia, the proportion of the latter is scarcely the fourth of that of French women. Amongst men the French exceed Italians in the choice of hanging, whilst the former are surpassed in the use of firearms; suffocation, on the other hand, is nearly the same in both countries. It is curious that the strong tendency of Italian women as opposed to French women to choose the knife or the pistol should be shared by the English and Americans, although the Anglo-Saxon habits are so different from the Italian.

In order to estimate the influence of race, great assistance is given by studying Austria-Hungary, where, nevertheless, the number of suicides by hanging is greater amongst the Slavo-Czechs (Bohemia, Moravia and Silesia), than elsewhere. In the use of drowning the Polish-Russians (Galicia, Buckovina) take the first rank, and immediately after come the Slavo-Italians (Carniola, Istria, Trieste, and Gorizia); in the use of firearms the Czechs; in the use of poison the Germans (Upper and Lower Austria, Styria, Salzburg, Carinthia, and Tyrol); lastly, in falls from heights, the knife, and asphyxia (included in our table under the heading 'otherwise'), the Slavo-Italians stand first. In Dalmatia 71 per cent. of men and 33 per cent. of women kill themselves by firearms.

It is worthy of note that in some countries women show a singular tendency to the use of the knife, so much so that in Prussia they surpass men in wounds by cutting (in 1869–72 there were respectively men, 3·5 per 1,000; women, 4·6); deaths by cutting the throat

(men, 31·7; women, 35·1); by opening the veins (men, 4·5; women, 5·1); and in ripping the abdomen (men, 0·4; women, 0·8) (see p. 321). In the Kingdom of Saxony, also, the women come very near the number of men in the use of cutting and stabbing weapons, and even surpass them in opening the gastrium (men, 0·6; women, 0·8); and in violent suffocation (men, 0·4; women, 1·1).

The second individual influence by which the choice of means of death is modified is that of *age*, and especially when in combination with sex. Almost all statistics are too silent on this subject, but we may presume that what was shown us by the Danish, English, and Swiss returns of suicides, and what Guerry has brought to light with regard to French suicides, happens everywhere. David was the first to arrange in order the suicides of Denmark according to age and method; but in his tables the number of cases of unknown age is about a *third* (28 per cent.) of the total; hence, notwithstanding that Wagner has made use of them, they appear to us doubtful data. From them, however, the following sexual divergences in the various periods of life appear to be the result: males under 15 years of age choose hanging (86 per cent.), and women choose drowning (71 per cent.); in the ages between 15 and 20 the same predilection of the two sexes continues, but it lessens (hanging amongst males is 72 per cent.; drowning among women 65), and it grows still less between the ages of 20 and 30. With the diminution of the tendency towards hanging, that towards drowning increases amongst the men, the greatest number of deaths by this means falling between the ages of 40 and 50; but in advanced age the old people return to a preference for hanging, even more than children (91 per cent.). Amongst the Danish women, on the other hand, something

still more remarkable occurs; drowning continues to be the chosen method of death up to the age of 30, but in the later periods of existence its place is taken by hanging, which reaches its maximum towards the age of 70. In the other modes of destruction it is seen that firearms give the larger proportion in youths between the ages of 20 and 30 (certainly in the military service), whilst the use of them diminishes with advancing age; above the age of 80 no Dane would slay himself with a pistol. The few Danes who use firearms are youths between 15 and 20 years of age. The use of cutting weapons, on the contrary, increases in both sexes with age, until its maximum is reached towards the age of 70; in like manner poison is chosen by young men under 20, and by young women between 20 and 30 years of age.

These laws are confirmed by finding them again in other countries also. The results obtained by Guerry of the suicides in Paris and in France are not very dissimilar, because at each age they choose some particular method; in youth they have recourse to hanging, which is soon abandoned for firearms, since fashion and romance lend a certain modern glory to blowing out the brains. In proportion, however, as the vigour of the body weakens, the French return to hanging, and by that method suicides of advanced age generally end their existence.

More recent and complete data for England and Wales allow us to produce another valuable contribution to this study. The following are the proportions per 1,000 of the means which were preferred in each stage of life of men and women during the long period, 1858–72:—

Influence of Age and Sex on the Means of Suicide in England.

Per 1,000	Under the age of 15	15–20	20–25	25–35	35–45	45–55	55–65	65–75	75 and upwards
A.—Men									
Number of cases . .	76	402	796	2,063	2,911	3,484	3,373	1,756	529
Firearms . . .	—	102	152	97	64	51	41	35	26
Knife	—	70	123	234	251	208	193	199	238
Poison	26	80	128	98	85	78	51	38	15
Drowning . . .	145	159	187	176	129	128	118	127	104
Hanging . . .	737	505	321	291	387	462	534	528	452
Otherwise . . .	92	84	89	103	83	73	63	72	164
B.—Women									
Number of cases . .	52	457	471	883	992	1,182	862	501	166
Firearms . . .	—	4·3	4·2	2·2	2·0	1·7	2·3	—	—
Knife	77	26	104	181	173	180	183	175	205
Poison	134	238	252	201	195	146	90	74	36
Drowning . . .	635	551	412	309	234	223	252	225	235
Hanging . . .	96	114	153	204	292	375	408	417	373
Otherwise . . .	57	66	74	103	103	74	64	108	161

Even amongst boys in England hanging, and amongst girls drowning, are the methods preferred. From first youth to between 25 and 35 years of age the tendency of males towards hanging diminishes and gives place to drowning, arms, and poison; but when the age of 35 is passed a return to the first tendency takes place, and augments with the progress of age, until at 75 it is the same as at the age of 15. On the other hand, amongst English women the propensity for drowning is in inverse ratio with the age, whilst hanging becomes, after the age of 35, the means most frequently used, and old women above the age of 65 are about equal to old men of that age. The use of firearms begins amongst men in their fifteenth year, is at the maximum between 20 and 25, and thence falls regularly to the extreme period of existence; amongst women, on the contrary, the maximum falls under the age of 20, certainly by reason of the more rapid psychical developement of woman. The use of poison, also, is more frequent in the young of both sexes, and decreases step by step

with the growth of years. Lastly, the increasing predilection of the adult and old women for suicide by weapons is worthy of note, its minimum falling between 15 to 20 years of age; by which it would seem they are influenced by the instinct of decorum.

Finally, the proof that the sociological laws just mentioned are general, is given by the Swiss returns of 1876. In Switzerland also, young men under the age of 20 hang themselves (58 per cent.), whilst the young women drown themselves (60 per cent.); the greatest preference for firearms is shown between the ages of 20 and 30 in men (39 per cent.), and also in women. With the increase of age in Switzerland then hanging becomes more frequent, because it always stands at 50 per cent. among men between 30 and 60 years of age, but from 70 and upwards it amounts to 68 per cent.; amongst old women it is the only means of suicide. Poisoning is preferred by the young of between 20 and 30 years of age in both sexes; drowning, on the other hand, varies, inasmuch as amongst women its maximum is reached under the age of 30, whilst, on the contrary, amongst men it occurs over 50 years of age.

Esquirol, somewhat prematurely and without the necessary amount of figures, had established that generally the instruments chosen by suicides are analogous to their profession, so that 'the military and sportsmen blow out their brains; barbers cut their throats with razors; cobblers pierce the abdomen with the awl, and engravers wound themselves with the burin; laundresses poison themselves with potash and "blue," although they likewise suffocate themselves by charcoal.' But these theoretical assertions, which would simplify research, need the support of more decisive facts. The most remarkable study of this influence is that which may be made on the

Danish and French returns, but unfortunately the most recent of the former are wanting, those, that is to say, subsequent to the period 1845–56, illustrated by David and Wagner, and as to the French the statistics of late years have done away with after 1868 the detailed distinction of the professional categories. Let us limit ourselves, then, to giving in a synopsis the proportions per 1,000 of each group of professions, which we calculate on the actual French figures of the period, 1836–52, reported by Lisle (Table XLVIII.).

TABLE XLVIII.—*Influence of the Professions on the Choice of Means of Death.*

Proportion per 1,000 *in France* (1836–52, *Lisle*).

PROFESSIONS	Number of cases	Drowning	Hanging	Firearms	Cutting and stabbing arms	Poison	Fall from height	Asphyxia	Otherwise
Agriculturists	15,026	363	423	122	34	16	17	19	6
Shepherds, woodkeepers	369	317	474	155	22	13	3	11	5
Suspected classes	480	427	377	36	12	8	77	63	—
Workers in wood	1,754	316	348	141	39	17	31	103	5
„ leathers, hides	370	208	403	143	52	32	30	124	8
„ metals	1,441	263	269	177	67	36	48	135	5
„ thread, wool, &c.	1,851	350	410	73	38	21	40	64	4
„ stone	1,034	307	376	149	40	10	38	73	7
Porters	1,118	332	388	109	37	20	42	65	7
Domestics	2,510	372	300	79	33	37	49	127	3
Bakers, pastrycooks	383	313	256	210	47	29	31	110	5
Butchers	276	289	391	105	102	18	22	72	—
Millers	290	328	404	193	17	31	10	17	—
Hatters, tailors	1,491	318	203	72	33	23	91	256	4
Shoemakers	830	298	324	132	64	23	59	95	5
Laundresses	282	291	177	32	14	18	43	425	—
Merchants, shopkeepers	2,664	265	273	205	43	47	51	112	4
Hotelkeepers, landlords	887	317	326	157	54	30	46	70	—
Artists	221	186	167	244	90	41	95	177	—
Clerks	248	222	182	222	52	16	68	234	4
Students	120	100	100	392	117	50	91	150	—
Officials	1,061	233	125	441	68	21	37	68	7
Military	2,729	199	164	516	43	5	53	19	1
Professors, masters	167	335	222	179	54	48	66	84	12
Physicians, notaries, and professions	478	217	147	305	136	92	52	38	13
Proprietors, capitalists	3,331	323	286	207	54	21	58	46	5
Without professions	2,948	485	293	79	30	19	54	36	4

The first thing we observe is the great number of deaths by hanging in the country, found also by Wagner in the period, 1856–60, and by David during 1845–56 in Denmark. In death by drowning the greatest proportion is of those individuals without professions, therefore almost all the feminine suicides appear amongst them. In the use of firearms as a means of death, the chief place belongs, as might be foreseen, to the military, whether in active service or pensioned, whilst the category of the professionals, notaries, doctors, engineers, &c., take the lead among suicides by cutting weapons and poison. Artists in falls from heights, laundresses in asphyxia (as Esquirol has said), show the largest numbers. But the difference between the various groups of professions is not so remarkable as that between the social classes. It may be perceived that in the upper classes hanging is considered too ignoble a method, whilst they have recourse more willingly to the pistol, poison, and, above all, to the knife.

In Denmark, also, the minimum numbers of deaths by hanging are those of the military, professionals, officials, and capitalists (respectively, 35, 51, 56, 60 per cent.), whilst the maximum is found among prisoners, children, peasants, and industrial labourers (namely, 95, 78, 76, 64 per cent.). In the English army, as in all others, the method preferred is naturally that of firearms; hanging scarcely amounts to 8 per cent., poison to 7 per cent. The following are the returns for the decennial 1862–71 (Millar):—

	Cases	Per 1,000
Firearms	363	546
Wounds by knife	107	161
Drowning	55	83
Hanging	53	80
Poison	47	71
Fractures, contusions	28	42
Otherwise	11	17

It would be very interesting to enquire into the influence of trades, which appears decisive, but yet it is combined and mixed up with that of sex and city life. In fact, among tailors, sempstresses, and weavers, where the feminine element predominates, and amongst millers, cheesemongers, butchers, workers in iron, where, on the contrary, the masculine element prevails, the sexual rather than the professional differences are more prominent; nevertheless, it cannot be denied that in the returns of suicides by cutting or stabbing arms, poison, asphyxia, the influence of the profession is not shown. Thus among all the operative classes the maximum of asphyxia is given to laundresses, and separated by a long interval by hatters, tailors, dressmakers and milliners, and by workers in metals. As to cutting weapons they are mostly preferred by butchers, smiths, shoemakers, and barbers. The high number of hatters and tailors among falls from heights depends on the predominance of women. Workers in iron and metals have recourse most often to poison on account of the greater facility of procuring it. It is worthy of note that the same divergence in various trades inferred by us in the period 1836–52, are those made out by Wagner for the three years 1859–61 (see his Table 75, p. 264), which shows the regularity of this professional influence.

Of the well-defined categories, that of domestic service has always the highest number of deaths by drowning, coming immediately after that of persons without profession and the suspected classes (vagrants, mendicants, prostitutes, &c.). In the subsequent period also, 1856–60, Wagner found the same thing, and we ought to add that even in Denmark (1845–56), where suicide in the water is so rare, the highest proportion (29 per cent.) is always offered by servants; but we must not

forget, however, that in that class women preponderate whom we know are more inclined towards drowning than are the men.

The examination of the methods of self-destruction preferred by the cultured classes would induce us to speak of another connexion between the mode of suicide and the nature of the determining motives, but we do not possess many figures. Knowing, as we do, that among youths death by firearms, asphyxia, and cutting and stabbing is preferred to hanging or drowning, and that love causes a large part among youthful suicides, we cannot avoid seeing a direct connexion between the ideality of motives and the choice of the most romantic and least ignoble instrument of death. Examining this connexion in the statistics of Saxony, the only ones which afford us the means of so doing, we discover that the less elevated motives correspond also with the meanest methods. Thus hanging is chosen by individuals who are tired of life, or suffering from alcoholism, or in misery; those who have heavy domestic sufferings end their days by drowning. A painful method, but for which a rapid and almost sudden determination is necessary, is falling from a height, and it is frequently found among mad people. On the other hand, firearms and poison, as being more tragic and sentimental methods, are preferred by those who are driven on to suicide by crossed love, jealousy, domestic troubles, or by embroiled affairs; thus it is to be noted that in Saxony the proportion of despairing lovers who hang themselves is the smallest of all.

It is most probable that in all this personal vanity plays the larger part. But the mental condition often takes a part also. In alienation of mind, and even in simple fanaticism without delirium, the kind of death preferred varies according to the morbid or exaggerated

ideas of the individual. The most decisive of all is certainly pellagra, which attracts towards death by drowning, but Fossati has observed with much acuteness that in the forms of erotomania, religious mania, demonianism, the suicides incline towards the most cruel wounds (including even cases of self-crucifixion [1]); in the despair caused by crossed love, disappointments, or shame, woman has a tendency to throw herself from a height; melancholia, on the other hand, urges the refusal of food, whilst excitement, provoked by physical suffering, causes a preference for arms and narcotics, or induces voluntary falling from a height. It is curious that in madness and extreme misery there is almost a repugnance to the use of fire-arms. These are, however, researches which deserve to be carried farther.

§ 4. *Of the Locality where Suicide happens.*

To whoever has followed the preceding pages it will not appear strange that even the choice of place where suicide is committed seems to be uniformly regular from year to year in both sexes. It is true that the statistics of Prussia alone afford us opportunity for this last part of our investigation; nevertheless, even from these Prussian figures we observe the recurrence of the same laws there already worked out by us in other characteristics of suicide. And this is what they comprehend: the choice of place is of as much consequence to the suicide as the choice of means of destruction, and the reasons for the preference which drives him to make use of water rather than fire-arms, or the halter rather than poison, influence him in like manner to commit suicide in his own dwelling, or on

[1] As in the celebrated case of Lovati at Venice (MARC: *De la Folie*, i. 348).

the public way, or in the sewers; hence it may be objected that the regular choice of these fixed places is really only another aspect of the stability in the preference given to the instruments of destruction. But if that is true specially of suicides by drowning, and perhaps by asphyxia, it is not so in regard to suicides which may

TABLE XLIX.—*Regularity in the Choice of Place by Suicides.*

Proportions per 10,000 *of both Sexes in Prussia* (1872–75).

PLACES	MEN				WOMEN			
	1872	1873	1874	1875	1872	1873	1874	1875
Number of cases . . .	2,363	2,216	5,227	2,683	587	610	548	595
I.—OPEN PLACES.								
A.—On Land.								
Country and plains . .	296	388	411	365	17	82	55	50
Woods	918	862	930	958	171	115	110	168
Gardens, public and private	284	248	313	335	103	131	55	50
Streets and squares . .	419	312	341	350	153	230	365	269
Consecrated places of various denominations . .	55	81	91	82	—	16	36	17
Other places	229	158	277	157	41	16	36	67
B.—In Water								
Seas, lakes, pools . . .	241	275	166	179	808	984	493	622
Rivers, streams . . .	639	713	649	600	1,329	1,574	1,569	1,832
Canals, mill-ponds . .	152	158	198	108	528	574	566	386
Laundries	114	135	75	97	426	459	292	269
Tanks and wells . . .	51	45	16	30	239	377	256	269
Water in general . . .	245	208	131	175	937	508	256	622
II.—CLOSED PLACES								
A.—Private buildings								
Inhabited places . . } Uninhabited places . }	3,479 {	2,703 1,142	2,463 1,508	2,598 1,599	} 3,630 {	2,656 721	3,339 1,077	2,975 1,210
B.—Public buildings								
Hotels, places of assembly .	144	135	150	175	85	33	73	50
Sanitary institutes . .	55	59	83	75	85	49	18	17
Educational and religious institutes	13	13	16	4	—	—	—	17
Retreats and asylums . .	106	78	67	41	102	49	36	84
Houses of correction and punishment . . .	220	199	245	246	34	16	36	34
Barracks	262	144	107	134	—	—	—	—
III.—ON THE HIGHWAYS								
Railway, carriages, ships .	21	18	28	26	—	—	36	—
IV.—UNASCERTAINED	2,057	1,927	1,729	1,666	1,342	1,410	1,296	992

be effected indifferently in one place as well as another, as those by firearms or the knife, by the halter, poison, or falls from heights, in which the constant repetition of the same figures in separate years proves the existence of that usual regularity proper to social phenomena. We indicate in Table XLIX. the principal places in which suicides occurred in Prussia during the four years, 1872–75; it is clear that their proportions maintain a uniformity for the whole four years in both sexes.

In the registration of the suicides which happened in private houses, the statistics before 1873 were more particularised, and it is noteworthy that, even in their own dwelling the suicides choose regularly every year the same places where to end their lives. We cannot forbear quoting the figures of the four years, 1869–72, of the Prussian statistics:—

Places in Private Houses where Suicides take place in Prussia.

Proportions per 1,000	Men				Women			
	1869	1870	1871	1872	1869	1870	1871	1872
Actual number of cases . .	908	850	891	822	197	231	193	213
Bed or dwelling room of the home	555	511	531	461	665	641	612	601
Domestic offices in private houses (kitchen, cellar, garret) .	136	168	154	186	152	177	207	192
In other people's houses . .	73	62	66	76	61	65	57	80
Stables, warehouses, granaries .	188	204	213	231	112	91	88	113
Out-houses and other places in connexion with household uses	48	55	36	46	10	26	36	14

The difference which always exists between the two sexes is really worthy of attention. Woman whose life is bound to the domestic hearth, and who preserves even on the most serious occasions the feeling of decorum, appears to have a repugnance to commit suicide openly, or in public places. Thus we see her proportions of death augment in suicides committed in private houses, and if

those by drowning appear an exception to the rule, it is certainly owing to her marked propensity for that method. Hence it may be noticed how suicides in wells adjacent to houses are less rare among women, whilst in rivers, whether in the open country or running through cities, the proportion of men exceed that of women. The number is small of suicides committed by women on consecrated ground, which arises in part from the extreme religious sentiment of woman. For the violent deaths committed also within-doors, the woman always prefers her own house to that of others, and the most remote and obscure parts of the house. It would doubtless be interesting for the psychologist to raise the veil which hides the mysteries of so many family misfortunes, and to discover the reasons, sometimes noble and weighty, sometimes shameful and thoughtless, why the suicide goes to cut his throat on his own bed, or to suffocate himself in the darkest recess of the house, but it is not by the rough figures of statistics that such complicated phenomena of the human mind can be demonstrated.

SECOND PART.

SYNTHESIS.

Nature and Therapeutics of Suicide.

WITH regard to what has been the result from the investigation of comparative statistics, it appears that the true nature of suicide may now be reckoned amongst the most certain and valuable discoveries of experimental psychology. By applying to this social phenomenon the eminently positive method of numerical progression and of proportional averages, we have discovered its organic character, so to speak, have understood clearly its inward workings, and have explained scientifically its historical evolution.

Suicide is not an act depending upon the personal spontaneity of man, but certainly neither less than nor unlike ordinary births and deaths, crimes, or mental diseases, is a social fact. Laws, universal and constant, and (as far as we can judge, *if the external conditions are not modified*) necessary, restrain within the narrowest limits the path of action assigned to each individual, and show that the psychical activities are obedient to the same influences and the slow transformations in time and space to which all the other activities of living organism and of species are subject; thus the greater irregularity of these latter, and their less evident dependence on

known causes with regard to a moral phenomenon like suicide, are worthy of note.

However, in investigating and summing up the laws of suicide from the aggregate of facts, we have purposely passed over silently the opinion as to its nature which might be drawn from them. But after analysing all these laws, our opinion appears clear and certain:

'*Suicide is an effect of the struggle for existence and of human selection, which works according to the laws of evolution among civilized people.*'

I.

The first person who recognised the importance of the battle of life for the happiness and moral conditions of men was Malthus, who, in a work which has become classic ('Essay on the Principle of Population'), expressed the fundamental idea that the 'most powerful cause by which the progress of the human family towards happiness has hitherto been prevented, is the constant tendency that there is in animal life to multiply beyond the limits fixed by the possibility of nutrition.' This Malthusian principle, extended by Darwin, now serves as a basis for the brilliant theory of evolution. Passing from the demographic to the more extended field of biology, the principle of the celebrated English divine is reinforced and now returns advantageously to its sources, which are to be found in moral discipline, psychology, and in differences of language.

We are not ignorant of the fact that the Malthusian doctrine now meets with much opposition, but if his formula of the law of increase of the population is correct, it seems, on the other hand, that the idea of resistance, or of the number of obstacles interposed on the develope-

ment of life, would be essentially the same now as those discovered by the great English writer. The 'evolution' of modern science is a pure, although wider, application of that principle, and it is now quite agreed that psychologists and sociologists, in order to estimate rightly the nature of human phenomena to whatever category they may belong, must start from the study of the difficulties of existence (the struggle for life). It has been long thought that there existed a gulf between the sciences which are concerned with the human mind and its good or evil products, and the sciences which arise from the observation of the lower living world; thus the investigation of the laws of human thought lost itself in vain disquisitions on metaphysical questions. On the contrary, it is necessary for the psychologist and sociologist to be also naturalists, and to seek the reasons of human phenomena in the evolution of life through all its organic phases and lower functions, as has been demonstrated to the least observing by the profound discoveries of the school headed by Herbert Spencer, Carpenter, Laycock, and Buckle. Many questions hitherto misrepresented, or which for long followed the easy slopes of idealistic rhetoric, or of the sentimentalism of the psychology of Des Cartes, can only receive their solution from natural laws common to all living beings.

Every organism meets from the beginning of its existence a multitude of adverse influences, against which it is necessary to struggle to procure all that is needful for life and for the satisfaction of its wants. The battle is fiercest between those beings who resemble each other the most, because then it becomes a downright competition of individuals having the same end to gain, and the same weapons wherewith to conquer. The merit belongs to Darwin of having brought to light the foundation of

all evolution from this struggle for existence, but this is not the place to investigate a doctrine which now has but few and unworthy opponents, and which has become common property. It is to be remembered rather that man likewise takes part in this struggle, who has, indeed, therein found the true cause of his organic and mental perfections from the time when he began to struggle for the possession of a miserable cave against the last terrible representatives of the tertiary fauna, or when he traversed victoriously the phases of the glacial period. The history of humanity is the narrative of this gigantic struggle; it is not to be compared to the blood, sufferings, and torture which the acquisition of free enquiry has cost the glorious generations of our philosophers and thinkers.

Merely a glance thrown on society, as it is at present, discovers everywhere, and in every branch of human activities, the competition between individuals, peoples, and races. The conditions of the struggle are determined by two essential facts, the first of which is the incessant increase of combatants in civilized societies, especially after the spirit of association by creating great works of public charity, and increasing the morality of the masses, makes existence easier to the weak and infirm, whilst wars, being rendered more murderous by the progress of science, steal away the most robust and active. The second fact is the free competition among labourers which increases in direct ratio with the number of individuals, and leads to the final advantage of industry, commerce, science, and of the material and psychical well-being of man; for the greater the improvement in a given kind of work, so is the competition of the workers the greater and more extended. On account of social usages the struggle is the fruitful source of changes and progress, although each of the combatants is moved by personal interests. But every

individual does not reap good from it. In every battle there are the conquerors and the conquered; the triumphant and the suffering. And it is natural; living creatures are unequal in nature, in skill, in physical force, in psychical activities, and this inequality exercises a decisive influence on their destiny. Owing to such divergence of characters there is a different degree of probability as to success of each of the combatants, because from the first his situation on the field of battle depends upon the number and goodness of the arms with which he comes to the struggle, premising, also, from that that the conditions of existence vary in different parts of the world and in different societies. External influences, indeed, added to the natural inequality amongst individuals, give room for a complication of causes, from which issues the victory of some and the discomfiture of others.

The comparatively limited number of victors is made up of the strongest, the best formed, the cleverest; the vital struggle having the same effect in human society as it has on the lower living creatures, that is, the bringing to perfection the means and arms for battle, and hence the evolution towards improvement of race or species by the transmissibility and variableness of characteristics (*natural selection*).

Amongst civilized men there are many wants to be satisfied, hence the weapons of the combatants are more complicated and noble. All the interesting phenomena of social life, all the progressive phases of civilization, have their origin in that constant struggle of man against nature, against other men, against himself; since history is nothing but the work of that human selection through which civilization has passed from one people to another, being conquered by those who have brought to greater and more rapid perfection their material or moral weapons.

But selection is more clearly seen in individuals than amongst peoples and races, for in the former lies the power of transformation, the equalising principle of the natural inequality between man and man, the principal cause which casts away the weak in body and mind in the battle of life. Nature grants to the weak but a small part of the rights which are said to be conceded to all living beings; she protects the strong, the skilful, the subtle, whilst she leaves the badly formed, the anomalous, the poor in force and skill to fall victims in the struggle. This inequality, this co-existence of the conquered and conquerors, which to all appearance is the scientific negation of some utopian form of socialism based upon the *complete* equality of men, shows that a continual elimination takes place of inferior organisms and of weak characters from the bosom of human society.

The struggle between civilized peoples tends to become still more a struggle of intelligence. In the constant competition between the men of society and of elevated classes, the organ which is by preference perfected and elevated is the brain; its activities and needs increase, and at the same time it amasses an enormous quantity of psychical force through which the weapons and the aims of the fight are ennobled, and, so to say, humanised. Amongst savages, and in the nations which are found on the borders of civilization, they fight with murderous weapons, and the victory belongs, as among animals, to the strongest, and indeed the right of might has been through many ages the hinge of human developement, so that even in the present proud 'civilization of the white race' the best place is often won, not by the most intelligent and honest, but by the best armed. Haeckel, however, well remarks that amongst individuals it is not he who is furnished with the best revolver that

conquers, but the most intelligent, or the most astute; in short, he conquers in whom the cerebral developement is highest.

We have already remarked that the perfecting of man has complicated in an extraordinary way the primitive wants of his organism. Amongst animals the competition is only in regard to the satisfying of the nutritive and sensitive wants, that is to say, food and females, and the weapons for the struggle are muscles and teeth, the means of defence and offence. The part which is taken by the cerebral functions in the competition is in direct ratio with the rank which the species occupies in the scale of life, and, in fact, shows a progressive evolution in the structure of the nervous system, from the still doubtful bipolar cells of the rhizopods, to the most complicated texture of the organs of the brain of the superior animals (*Primates*); but, however much the psychical power is evolved in the animal organism, and varies, increases, and becomes perfect in the different species, nevertheless it remains radically what it was at its first appearance, namely, sense, will, and intelligence. For a long while it was not possible to grasp this fundamental law of psychical evolution, because the researches of philosophers were limited to man only, in whom the thinking power assumes such weight and supremacy as to place him, to those who observe superficially, in a separate class of phenomena. But it is only the comparative study of psychogenesis that proves how the animal becomes man through a long series of transformations and improvements, until in the last step of the series the brain power takes the lead of all the others, assimilates them, and from merely animal wants they often show us only the more human, the psychological side. But this evolution of the mental power is not observed generally only in the whole

living race; it is to be seen, also, in the species man and in the individual man. The lower races nearly approach animality, and their activities display themselves just as well without the dress and show proper to the superior races, amongst whom civilization renders the struggle for life deeper and more energetic, tending to limit the weapons for the struggle to the mental faculties alone. With regard to the individual the mind continues developing in a progressive way from childhood to youth, from the youth to the adult. The infant in its earliest stage has only one want, the fundamental one however, that of nourishment; but soon education, heredity, organic developement, participation in the life of the family, the developement of the instincts and feelings increase the desires of youth and of young men. Once having entered into the social movement, man is brought in contact with his fellow-men, meets with obstacles, enemies, against which he is obliged to use his natural weapons with which heredity and education have furnished him. Thinking over the means for winning in the struggle for life, and there is a struggle for all wants, even the least essential, and in all classes of society, the brain becomes used to continual work, to an activity growing in direct ratio with the difficulties of the struggle, and the elevation of the end to the attainment of which the individual aims at with all his forces; thus a victory is only gained after unheard of efforts of intelligence, reflection, sagacity, physical resistance, of adaptation to external conditions. And very often the end seems gained, the necessity is on the point of being satisfied, already the cry of victory breaks out from the breast of the combatant, when an unforeseen obstacle, a sudden weariness, a more skilled and strong and intelligent rival, or even one gifted with

more patient energy, snatches away from the unfortunate man every hope of success, and disables him in the fight.

What will be the result of defeat? In what way ought the loser by the law of natural selection to succumb and to leave the place to others who are abler and more fortunate? Amongst animals, and in the human race, owing to the fact that the nutritive and sensitive needs come before all others, the fate of the conquered is one and the same; insufficiency of food, repulsion from the sexual struggle, hence misery, inaction, sterility, and death. And, indeed, weak and deformed beings do not assist the species, because they would transmit disadvantageous or useless characteristics (Morselli, 'La Neogenesi, Archiv. Antrop,' 1873); from which it may be perceived that the ultimate result of the defeat of the individuals is often the extinction of race or of species, which is proved, not so much by the evolution of animality as by the history of the struggles amongst peoples in all ages. But in the superior races and individuals the effects of defeat are much more complicated. They judge wrongly who think that the evils of civilized society, such as misery, disease, prostitution, madness, suicide, are accidental and avoidable, but to those who look at things from the positive side it appears clear that they are the effects of the same law of evolution to which all living beings are subject, and the aim of which is the well-being of animals, and for man that state of moral and physical perfection unconsciously desired by nature, and which metaphysicians define as the future happiness of the individual. These social evils represent the inevitable result of the struggle for existence.

And in truth, the weapon of which man of a superior race makes use is the brain. It is, therefore, obvious that the first and evil effect of defeat is felt on the organ

which is destined to be the instrument of battle, and as the instrument is destroyed in weak and inexperienced hands, so the brain decays and breaks down under the excessive weight of a struggle to which its forces and faculties are unequal. This amounts to saying that in the exercise of the brain power some morbid aberration takes place which comes out in madness, or in that unsatisfied desire which terminates in voluntary death. In both these ends nature reaches its aim; the weak in body and mind, the malformed is obliged to retire, whether he wishes or not, from the struggle, and by this the whole of humanity, along with the other combatants, gains an advantage. In proportion to the number of individuals who take part in the struggle for life, that of the suicides and mad is comparatively small; but it must not be forgotten that the greater part of the conquered pays a corresponding tribute to early death, indigence, emigration, to crime, prostitution, and to physical infirmities. Whether the defeat changes for some to perversion of the cerebral faculties, or in others to the premature failure of the physical powers, the final result is always the same, because it is made impossible for those individuals to compete with the stronger and more intelligent, and in both cases they succumb without having reached the aim to which their inadequate and insufficient powers tended. On the other side, the needs, the desires, the aims of civilized man are most complicated, so that the difficulties of the struggle augment still more as the defeats increase. The more the activities of industry and commerce, of science and art, of material well-being and luxury are multiplied, the more are new pages of human thought opened out. On each of these pages a long and varied series of sacrifices and victims is erewhile inscribed, to which the continual arrival of new combatants contribute (the

annual geometrical increment of the population). It appears, then, to be the result of a natural law that the number of mad, of suicides, of the destitute, follows the augmentation described by us in countries in a state of progress, as long as their social conditions remain unchanged, and, on the contrary, appear stationary, or are decreasing where laws and education are directed to control them.

II.

From whatever side suicide is considered, the dependence on natural causes to which we attribute it is always the result. For whoever has followed us in the long analytical course which we have pursued, ought now to be convinced of the connexion between competition and social evolution, and the inclination towards suicide. Suicide increases amongst people according to their degree of civilization, not so much because in the high developement of the cerebral organism the needs which must be satisfied increase, as because the brain shares more largely in the struggle. Two powerful causes raise up competition among civilized peoples: first, their more rapid and easy multiplication, and then that harmful and artificial selection which is made by military levies. During the most useful and active period of life the most robust and intelligent are taken from their families, from work, from productive employment, because in the militarism of modern States the more weak, malformed, and infirm a man is, there is the greater probability of his escaping the conscription, and unfortunately of founding a family. So the weak and worst part of society increases and multiplies by natural heredity and transmission of character, and it is not to be wondered at if, with the progressive

physical and moral weakness of generations, the number of those beaten in the battle of life increases, and consequently, also, that of suicides and the mad. How necessary and yet how rare amongst all social classes and civilized peoples is the union of a free and independent spirit with a healthy and robust body. Yet that union is the only curb on the many lamentable evils which afflict human society, and against which the weapons of metaphysical dialectics are uselessly broken. The tribute paid by cultivated individuals, who take the larger share in the struggle for life, to suicide and madness is in a peculiar way the most important; and, indeed, these are they who more than other men fight with the brain and use it up before its time. By having more wants and desires to satisfy, these men meet with more numerous and vigorous obstacles, knowing as they do that the struggle for existence is specially severe where the habits, the instincts, and weapons of the individuals are alike, where, in short, organic affinity exists (Darwin). And do we not, in fact, see that in human society, precisely as happens amongst animals, the contest is more deeply exciting and lasts longer when the rivals have the same aspirations? On this principle the necessary division of the individual paths of labour in civilized life is founded, because competition between a man of letters and a commercial man would be impossible, as they have very different ends to reach.

All the differences of race, of nationality, of religion, and culture, would be incomprehensible if suicide were not looked upon as the consequence of a continual struggle between peoples and individuals, whilst other general influences, particularly climate, seasons, and annual temperature, show man struggling with nature and represent another side of human evolution. It appears to us useless in this work to recount all facts bearing on the case which

confirm the adaptability of man to external conditions, and the effects of morphological and functional variability which proceed from this capacity for adaptation. It is plain, also, that the victims of the influence of natural order are levied from among the weak individuals (they are, in fact, proportionally more numerous among women), whose elimination is always in relation with human selection. On the other hand, the highest intensity of violent deaths amongst men who consume most of their psychical force, or who have a more vigorous participation in the social movement, arises from the harm which the brain and the organism sustain by means of social intercourse. Those who have naturally a weak mind, an infirm or irresolute character, an inferior position, or one disproportioned to their aspirations; those whose bad education, false religion, and intemperance create or render the fibre soft, infirm, and impressionable; in fine, those whose passions, those proceeding especially from animal wants, make them a prey to corruption, to vice, and misery, are the numerous and inevitable victims of human selection. They desire the benefits of civilization, they wish for ease, dignity, riches, virtue, but they do not possess such means and ability as would assure them victory.

That man contributes more victims to suicide than woman; the old and the adult more than the young man and youth; that is to say, that the tendency to violent death only appears when the individual enters into practical life and experiences its adversities and difficulties, are facts in support of our opinion which we have more fully developed elsewhere.

Suicide augments with the diminution of the means of subsistence (famine, wars, food growing dear), by a simple effect of the Malthusian principle of the population, and it is curious that suicide through misery, or deficiency

of food, being the most simple and natural, suffices to explain all the others. In these cases, to restore the balance between consumer and products, it is necessary that a greater number of individuals should die prematurely; there must be, as Malthus said, a rapid succession of short-lived beings with which to maintain the number; one generation shall be driven into its grave before its time, to give space and nutriment to its successor. Hence certainly arises the premature elimination of a determinate number of individuals—hence the selection of the strong and able; now, to whom will the victory fall? On whom the defeat? The number is fixed because by as much as natural production is diminished by so much is the probability of death amongst the consumers inevitably increased. Therefore a kind of struggle is established, all the more terrible as it touches on fundamental and pressing wants; the conquered must give place to the victors, and amongst the first who go will be all those unable for work, those who, having many desires and passions to satisfy, find themselves facing the terrible spectre of misery; the intemperate, and the improvident, who consume their substance during a time of abundance without thinking of the morrow; the weak in character, who cannot adapt themselves to new ideas, nor change their old habits when necessary, or whom overwork, privations, or the abuse of pleasure have rendered timid in the hour of danger—cowardly in the presence of unexpected misfortune. These are condemned; but will nature cut them off by premature death, or by confusion of the mental faculties? That depends upon the complex conditions into which all these weak and unfortunate people are placed; the mode of cutting them off will differ; for one it will be by extreme poverty, and slow privations, for another by hunger or a rapid illness;

for one madness, for another suicide; but under one form or another early death must inexorably reach them. There is, then, in human society a principle which constantly maintains the population on a level with the means of subsistence; this is the sad law of necessity, misery, and the fear of misery. And do we not see that a large part of the suicides are excited by this cause, which is as inevitable as it is advantageous to the material well-being of the surviving?

The same competition occurs amongst all human society as amongst animals with respect to erotic necessities. The aim of sexual selection is to choose the best and most suitable, and to discard the deformed and infirm. Infinite complications arise from the developement of the brain in this instinctive feeling, and now it is with difficulty that all the psychical work of love can be disentangled, by reducing it to its true primitive significance; but it is enough for us to know that the consideration and foresight shown in sexual selection has a large share in the happiness of families and in the moral well-being of individuals. It is clear that the suicide for love met with obstacles, disappointments, rivalry, and that giving way in the sexual strife, he considers death preferable to the grief at defeat and displeasure at seeing the good fortune of his own rivals.

It would appear at first sight that the category of suicides through domestic troubles ought to exclude the struggle for life, but if we well consider the matter this is also an effect of the same law by which the unhappiness and death of a given number of individuals is necessary in relation to the equilibrium of nature. These vexations arise always from obstacles which may be brought under one or other of the categories already indicated; in other words, from the struggle for the satisfying of necessities;

now, admitting that civilized man has transformed the reproductive instinct so as to ennoble it by the institution of the family, it is evident that the foundation, the substratum, so to speak, of moral sorrow and domestic trouble is always due to scorn of the needs which require to be satisfied (cerebral necessities). In these cases the question is certainly complicated, but is that not always the case wherever the intellectual or moral element preponderates? It would be of as much use to deny, as does Quatrefages, that all the human psychological faculties are a simple evolution of animal powers.

The great influence of cerebral necessities on the happiness of man of a superior race, or of a privileged caste, is shown by the elevation and complexity of motives which determine him to kill himself. Whilst the savage, if he commits such an act, always commits it by reason of necessities, either nutritive or sensitive, the cultivated man, in whom the brain rules absolute over the simply organic appetites, will kill himself through deluded ambition, fear of dishonour, or through some other feeling of cerebral origin. But yet, perhaps such motives do not proceed, as we have demonstrated, from a morbid exaggeration of egoism. And what is this eloquent confession of weakness, of moral feebleness? what is this want of energy, and of character, but a true and fitting defeat in the great battle of life? Such a man has met with obstacles, come into collision with social usages, blunted his arms by indifference or hatred of his kind, saw himself deprived for ever of the joys and benefits of which he, perhaps, thought himself worthy, and succumbed in the struggle. It would have been as useful for the necessary effect of the social laws that he should either have become mad, or have died through physical illness, or have

fallen into the most horrible misery; one way or another he was a lost man.

We might conjecture at first sight that of all professions those would predispose him to suicide which exposed the individual to the most irritating struggles, the most obstinate resistance, the most acute sufferings. All that would mean competition and rivalry; with a rise in the condition and culture of the combatants the fighting equipment of offence and defence not only increases, but between similar individuals who have the same aspirations, the advantage is on the side of him who is able to ask less and offer the most. If the disposition of the professional categories in the returns of suicide is recollected, those will be found higher in number who meet with greater competition, or which entail a larger consumption of his brain power.

An attentive observer of human society may gather valuable data on the way in which all the various activities clash and become involved. To all appearance there exists in civilized society the greatest tranquillity and serenity of mind, but in the meantime no one ceases from making a show of his own talents, skill, force, and character, and now this rivalship is a latent devouring fever, which seizes us all, which winds about our fibres, and which urges us on to over-work. We may say that from childhood education tends to prepare us for the struggle which we shall have to sustain as soon as we enter on practical life, but how false is its method, faulty its system, and ephemeral its benefit! . . . through our very cultivation we are driven to attempt by great efforts to exceed our faculties; we all desire to advance by great steps, and in this unbridled career there are very few who do not fall breathless before reaching the goal. Each of us had from first youth struggles, friends, and companions,

which afterwards we saw overthrown by early death, by misery, crime, suicide, and madness. Only the fortunate ones passed beyond, but did all arrive at the butt? How many drag themselves on unhappily all through life, even more unfortunate victims of the strife than those who fell! Thus each combatant only hastens on for his own interest; individual utility is included in the profit of the whole of society; the invention and the work of each one accumulate and gather themselves together in a single perfection, that of the whole of humanity.

If there was no other reasoning by which to demonstrate that suicide amongst civilized people is a consequence of the struggle for life, the inverse proportion which it has to crime would be sufficient to prove it. Assassination, theft, violation, are immoral acts made use of to obtain satisfaction of some want or instinct; they represent, in short, the morbid weapons of the competition for life. The more incapable the individual is to struggle with superior powers, the more he inclines to conquer his rivals by violence. The same thing happens amongst animals whose struggles are almost always stained with blood, inasmuch as they both fight in order to kill and devour the other. To conquer in such a battle the inferior organisms employ every kind of weapon, that is to say, cutting and stabbing arms, agility, poison, benumbing the currents (animal electricity), frauds, deceit, dissimulation, the alliance of the strong against the weak, and coquetry. Man makes use of these means with the greater facility the nearer he approaches the savage state; the morals of the inhabitants of Terra del Fuego and Australia, who devour their women in time of famine and smoke their old people to death when they have become a burthen to the tribe, is very different from ours. It may well be said that criminals instinctively revive these

savage orgies among civilized people. These have needs, very powerful passions, and desires, whose voice they blindly obey in direct ratio to the weakness of their mental organism. The criminal man, who has not wherewith to satisfy these wants, will kill and rob the other man; he, on the other hand, in whom education instilled the sentiment of duty, will cut the thread of existence with his own hands rather than make use of those homicidal and harmful weapons. The final result is the same; both are deformed in body and mind, and they will go forth from the combat by different ways, but with identical effect; these by means of suicide, those by way of the gallows or the hangman. And this is why suicide and crime are found alternately, as we already proved does come to pass among European peoples. It is clear that the two social phenomena have an analogous signification; it is always the weak who gives place to the stronger if it is a question of crime, and it is a weak character who is destroyed in the struggle for life when it is a question of suicide.

III.

What we have deduced as to the true nature of suicide considered as a social phenomenon is more than sufficient to demonstrate the inefficiency of the means proposed by philosophers and moralists to withstand its increase. The real cure of the evil could not be initiated or foreseen until its true nature and extension was known. And here it is that statistical researches are useful, which yet at first sight appear so little productive of practical results.

Religion and morals have never reached the root of the calamity; they were ignorant of its growth, and therefore the really essential element to undertake the

only cure possible was wanting, that of prophylactics. Sociology, on the contrary, teaches us what are the true psychological and social characteristics of suicide, explains its mechanism to us, and can put us on the right road better than any speculative discipline to prevent and cure this fatal tendency of civilized society. To science alone will belong in future the functions of regulator and moderator of public morals. Already with regard to crime we have begun to acknowledge the uselessness, let us say courageously, also, the enormous evil of the penitentiary system, and nowadays jurisprudence, criminal law, and ethics, have entered on a juster and more useful path. Even for madness the necessity of an educational preventive is recognised; by developing the powerful means of mental education, now put into operation with very little advantage, and by endeavouring to increase the resources of human thought, the man of superior race can in the future defend himself from attacks of madness (Maudsley). Now, why should it not be the same with suicide?

We have seen that the question of suicide approached closely, and in most points it is identified with, the gravest questions with which humanity is justly occupied: namely, pauperism, public instruction and morality, crime, the condition of the middle classes, the struggle for life, influence of the press, educational systems, the developement of the material and living forces of civilized society. All these pages of the history of man, sometimes sanguinary, sometimes brilliant, are reflected in that of suicide. And how is it possible that theoretical exhortations of moralists can suffice to arrest at the last moment the man whom despair at the struggle urges to turn against himself the homicidal weapon? And how is it possible to have faith in that pretended moral cure if more direct and preventive means are not taken in hand?

The sole preventive against madness and suicide would consist in diminishing the struggle for life amongst men, and in these days there is, on the contrary, a tendency to overcharge in every one and everywhere the branches of human activity. And how is it possible to diminish it except by a method as difficult to put in practice as it is badly received in general, if only utterance is given to it, we mean by checking the excessive multiplying of combatants? The answer to this idea of the Malthusian economical school will be that the history of our age proves the existence of always great and unexpected resources; but we can predict too surely a not very remote time when it will be no longer possible to augment the old or create new resources. But in the meantime, as this direct method is at present unattainable, we must content ourselves with the indirect, that is to say, with those means which ameliorate the conditions of the struggle for existence, and tend to neutralise the inequality placed by nature, between the various combatants. Others, the most authoritative and learned amongst us, have unfolded in pages profound in knowledge and originality of idea the prophylactics of madness (Maudsley, Tuke); they are of value, also, for suicide. It is certain that man exercises a power over himself which is able to preserve him from aberration of mind, and this power has a slow and gradual developement determined by the education of the character. One whose morbid sensibility, and whose faculties are incapable of striving against the cruel experience of practical reality, soon arrives at the two roads in which Goethe places his hero in 'Werther'; suicide or madness. It would be of as much use, as Maudsley wisely says, to preach moderation to the whirlwind as to talk philosophy to the man whose predilections and antecedents lead him to the border either of madness or violent death;

nevertheless many have pretended to arrest the suicidal propensity by high-sounding phrases, and by allowing punishment and infamy to be inflicted on the bodies of suicides! The whole cure is, on the contrary, preventive, and is contained in this one precept:—

To develope in man the power of well-ordering sentiments and ideas by which to reach a certain aim in life; in short, to give force and energy to the moral character.

The great thinkers have insisted upon the necessity of this, and it is sufficient to cite a Franklin, a Smiles, a Stuart Mill, and a Maudsley. When we speak of developement of character, we mean to put into operation the best system of education, the improving the moral condition of the proletariat classes, the moderation of egotistical tendency, the bridling of the passions; misery, intemperance, dissoluteness, are powerful causes of weakness, and consequently of suicide. If the intellectual and moral wants of man were developed in him to the loss of the lower, the nutritive and sensitive, he would not be long in gaining that amendment to which by continual improvement he has been tending through so many ages. It is certain that suicide will diminish amongst civilized peoples only by establishing a balance between individual needs and social utility; when, that is to say, each one will act with a view to the association of all the powers, vital, intellectual, and moral, and when in the struggle for life every man will carry in his conscience the feeling of duty, which is that of sacrificing his own egoism to the well-being of the whole race.

APPENDIX.

THE METHOD BY WHICH STATISTICAL DATA UPON SUICIDE HAVE BEEN COLLECTED.

In the Italian edition there is a long bibliographical appendix where the sources are indicated whence the author has drawn for this work. In general he consulted, especially for the later years, all the official statistics, and whoever wishes to have more particular information will be able to find it in the original book. Here it will suffice to mention that for explanation of the different methods by which statistical data on violent deaths in the European States are collected may be consulted the 'Zeitschrift des K. Statistischen Bureaus' of Prussia, 1871, p. 41, and the recent publications of the Direction of Statistics of the Kingdom of Italy, entitled 'Movimento dello Stato Civile—Anni dal 1862 al 1877—Introduzione con raffronti di Statistica internazionale,' Rome 1878 (1879) p. cclxi. et seq. The differences which sometimes exist between the various statistics of the same country arise from the fact that the information on violent deaths is collected sometimes by the ecclesiastical authorities, sometimes by the judicial, sometimes by those especially employed, and sometimes by the Registrars. The various modes of registration thus influence even the value of the international comparisons. Here we will confine ourselves to giving the following explanations which seem to us the most useful.

In Italy the data relating to suicides and other violent deaths are collected by the municipal Registry Offices,

generally under the direction of the doctors who make post-mortem examinations. In every case judicial authority must be present.

In Prussia, up to the end of 1874, they were regulated by the Central Statistical Office based on the information furnished by the ecclesiastical authorities, and for Dissenters and Jews by the judicial statistics; after 1875, on the contrary, they were based on special certificates for every case of death issued by the Registry Offices.

In France the information is drawn from the judicial registries, and then published in the reports of the ministry of grace and justice.

In England there exists for the verification of violent deaths a special authority composed of so called *coroners* charged with examining the dead body, and to report upon it; but in the registries of the movement of the population (*Registrar-General*) the figures given by the coroners are reproduced with some slight difference.

In Switzerland the information is sent by the Registry Offices, and published in the returns of the population.

In Sweden the pastors are obliged to send every year to the Central Office some special extracts under this head from the registry office, indicating the cases of violent death. On the other hand, the judicial authorities proceed to examine all these cases and to decide upon them. Between the parochial and the judicial registries an exact agreement is therefore almost impossible.

In Norway the data of violent deaths are collected by the clergy who act as officials of the Registry Office.

In Austria up to 1871 the violent deaths were registered next after the information of the ecclesiastical authorities in the tables of the movement of the population. Since 1871 the most exact information is furnished by the sanitary officials and published in the 'Statistics of Health.'

In Bavaria the source of the information on suicides is still more complicated. Before 1844 they were collected by the same authority which furnished the data for the movement of the

population: from 1844 to 1856 by the judicial authorities; since 1857–58 by the medical officer (*Amtsärzten*), together with the provincial administrative authorities. At the same time the officials of the Registries who take note of the returns of the population collect also the data on suicide which are furnished by doctors who make post-mortems. However, it is impossible to compare the data given by the statistical returns of the population with those drawn up by official doctors, as there are differences sometimes more, sometimes less, according to the different opinions which are followed in adjudicating the causes of death. We may add that before 1871 the administrative year, according to which the information spoken of was regulated, counted from the first of October to the thirtieth of September; only after 1871 were the official publications arranged according to the usual solar year.

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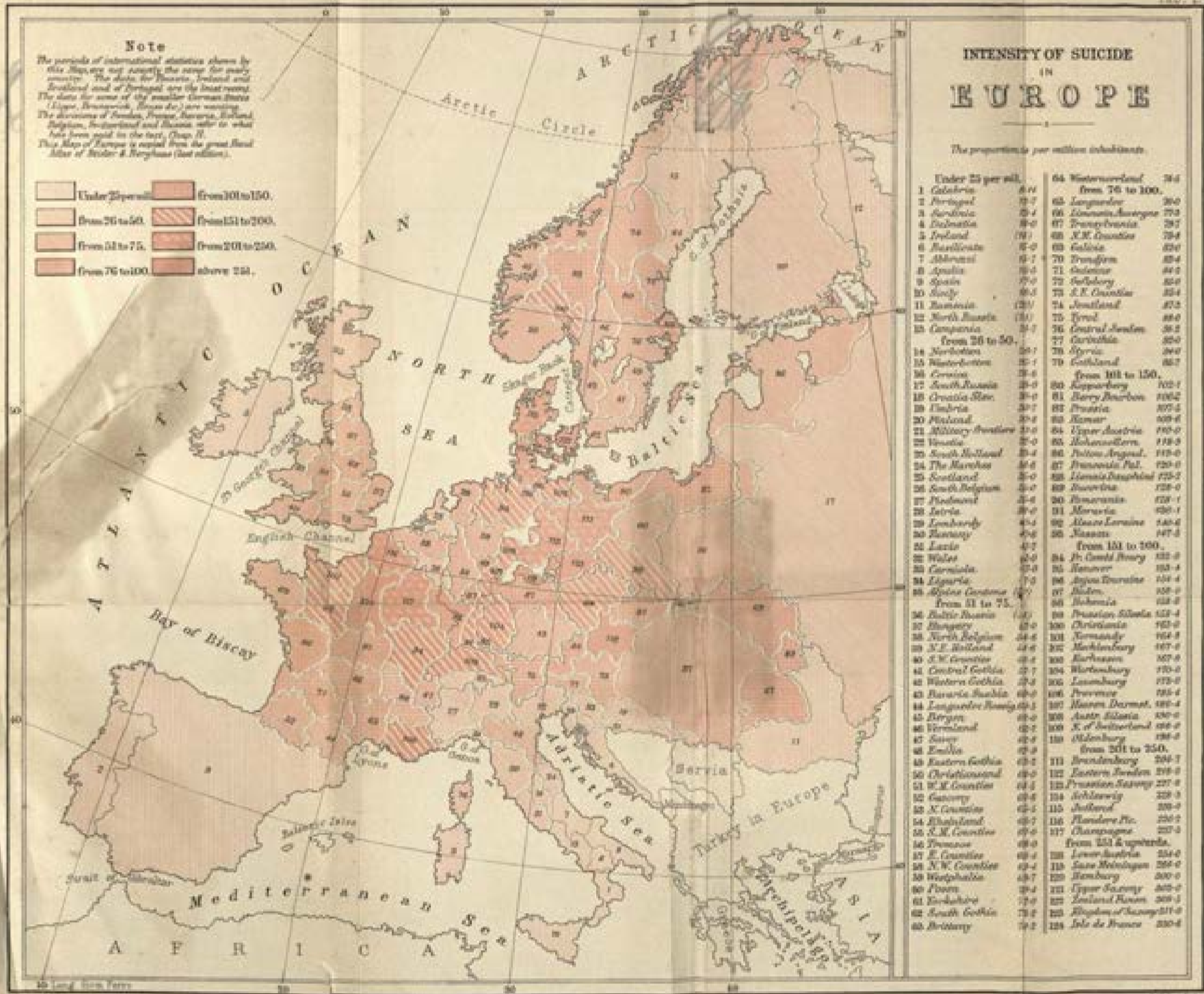
Note
The periods of international statistics shown by this Map are not exactly the same for every country. The data for Prussia, Ireland and Scotland and of Portugal are the least exact. The data for some of the smaller German States (Lippe, Brunswick, Hesse &c.) are wanting. The divisions of Sweden, Prussia, Bavaria, Holland, Belgium, Switzerland and Russia refer to what has been said in the text, Chap. II.
This Map of Europe is copied from the great Royal Atlas of Stieler & Berghaus (last edition).
Under 25 per mill.
from 25 to 50.
from 51 to 75.
from 76 to 100.
from 101 to 150.
from 151 to 200.
from 201 to 250.
above 250.
ARCTIC OCEAN
Arctic Circle
ATLANTIC OCEAN
NORTH SEA
Baltic Sea
English Channel
Bay of Biscay
Mediterranean Sea
Adriatic Sea
Turkey in Europe
Greece
Balearic Isles
Strait of Gibraltar
AFRICA
Asia
Long. from Ferro

INTENSITY OF SUICIDE IN EUROPE

The proportion is per million inhabitants.

Under 25 per mill.		64. Westmoreland	76·6
1. Calabria	8·41	**from 76 to 100.**	
2. Portugal	12·7	65. Languedoc	76·9
3. Sardinia	12·4	66. Limousin, Auvergne	77·3
4. Dalmatia	18·0	67. Transylvania	78·7
5. Ireland	(?)	68. N.W. Counties	79·6
6. Basilicata	15·0	69. Galicia	82·0
7. Abbruzzi	15·7	70. Transform	83·4
8. Apulia	16·4	71. Gutenise	84·3
9. Spain	17·0	72. Gothenburg	85·0
10. Sicily	19·3	73. S.E. Counties	85·4
11. Rumania	(?)	74. Jemtland	87·3
12. North Russia	(?)	75. Tyrol	88·0
13. Campania	24·7	76. Central Sweden	90·2
from 26 to 50.		77. Carinthia	92·0
14. Navarre	26·1	78. Styria	94·0
15. Westerbotten	27·1	79. Gothland	96·7
16. Corsica	28·6	**from 101 to 150.**	
17. South Russia	29·0	80. Kopparberg	102·1
18. Croatia-Slav.	29·0	81. Berry, Bourbon	106·2
19. Umbria	29·7	82. Prussia	107·5
20. Finland	29·8	83. Kemar	109·6
21. Military Frontiers	31·0	84. Upper Austria	110·0
22. Venetia	32·0	85. Hohenzollern	118·3
23. South Holland	33·4	86. Poitou, Angoul.	119·0
24. The Marches	34·6	87. Provence, Pal.	120·0
25. Scotland	37·0	88. Limoin, Dauphiné	123·2
26. South Belgium	41·0	89. Bucovina	123·0
27. Piedmont	42·6	90. Pomerania	123·1
28. Istria	43·0	91. Moravia	126·1
29. Lombardy	45·4	92. Alsace Lorraine	140·6
30. Tuscany	47·6	93. Nassau	147·3
31. Lazio	47·7	**from 151 to 200.**	
32. Wales	48·0	94. St. Cassel Bourg	152·0
33. Carniola	48·0	95. Hanover	153·4
34. Liguria	47·0	96. Aquitaine	154·4
35. Alpine Centons	(?)	97. Baden	158·0
From 51 to 75.		98. Bohemia	158·0
36. Baltic Russia	(?)	99. Prussian Silesia	158·4
37. Hungary	52·0	100. Christiania	163·0
38. North Belgium	54·6	101. Normandy	164·8
39. N.E. Holland	54·6	102. Mecklenburg	167·0
40. S.W. Counties	55·6	103. Lucknow	167·0
41. Central Gothia	57·7	104. Wurtemburg	170·0
42. Western Gothia	57·0	105. Luxemburg	173·0
43. Bavaria, Suabia	60·0	106. Provence	195·4
44. Languedoc, Roussig	60·3	107. Hessen, Darmst.	195·4
45. Bergen	60·0	108. Austr. Silesia	196·0
46. Vermland	62·2	109. N. of Switzerland	196·0
47. Saxony	62·6	110. Oldenburg	198·0
48. Emilia	62·0	**from 201 to 250.**	
49. Eastern Gothia	63·2	111. Brandenburg	204·7
50. Christianssand	63·0	112. Eastern Sweden	218·0
51. W.M. Counties	64·4	113. Prussian Saxony	227·0
52. Gascony	65·6	114. Schleswig	228·3
53. N. Counties	65·5	115. Jutland	230·0
54. Rhineland	65·7	116. Flandere Pic.	230·0
55. S.M. Counties	66·0	117. Champagne	237·3
56. Provence	66·0	**from 251 & upwards.**	
57. E. Counties	66·4	118. Lower Austria	254·0
58. N.W. Counties	69·4	119. Saxe Meiningen	256·0
59. Westphalia	69·7	120. Hamburg	260·0
60. Posen	70·4	121. Upper Saxony	262·0
61. Yorkshire	71·0	122. Zealand, Funen	269·3
62. South Gothia	73·6	123. Kingdom of Saxony	271·0
63. Brittany	74·2	124. Isle de France	280·6

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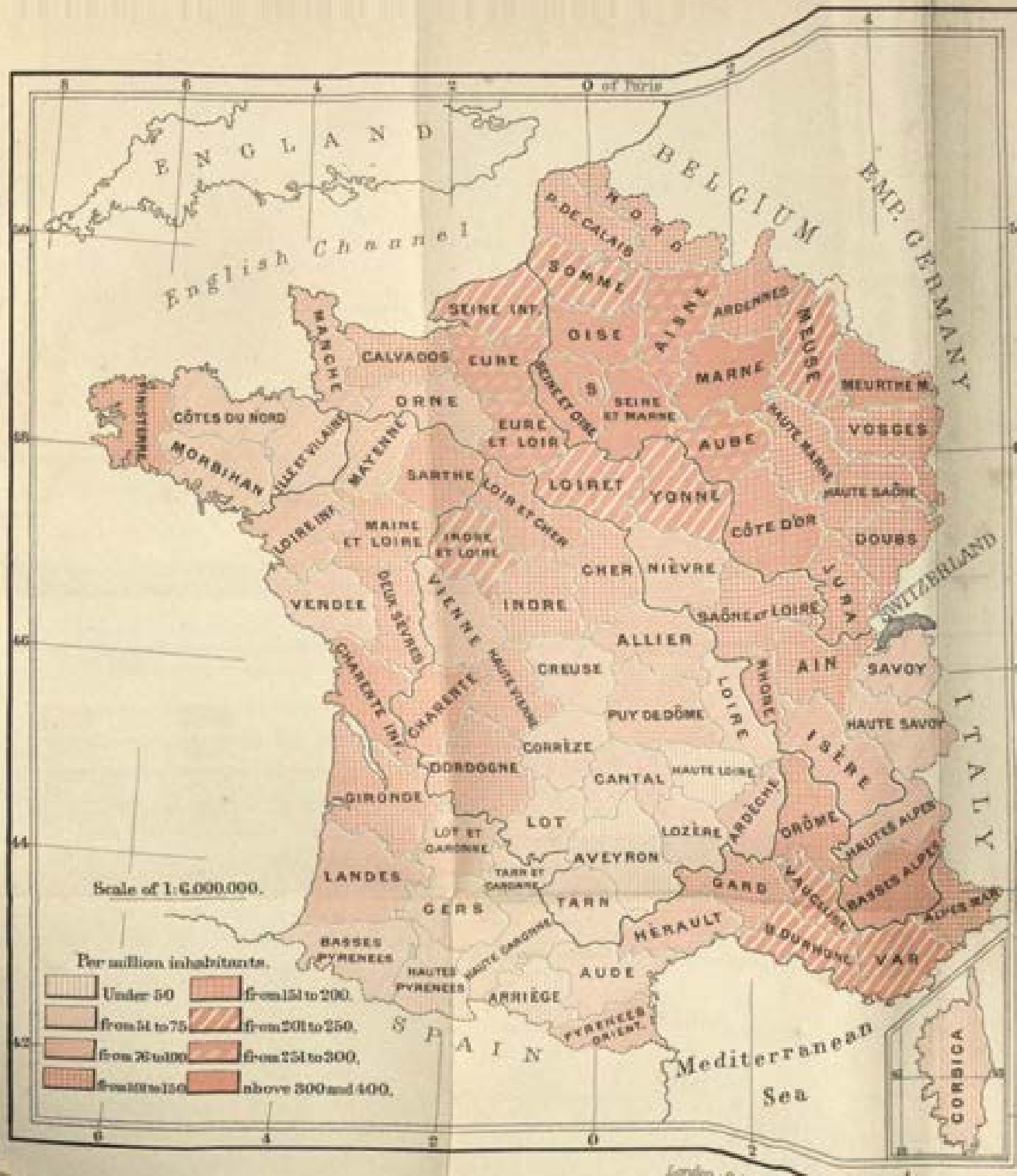

INTENSITY OF SUICIDE IN FRANCE

IN EACH DEPARTMENT.

Average annual number of suicides per 1 million inhabitants.

Period 1872-1876.

Under 50.		44 *Nord*	109·9
1 *Corsica*	28·6	45 *Doubs*	113·9
2 *Ariège*	30·8	46 *Gard*	114·7
3 *Aveyron*	39·7	47 *Dordogne*	115·3
4 *Hautes Pyrenees*	39·9	48 *Haute Saone*	118·1
5 *Haute Loire*	45·9	49 *Gironde*	122·5
from 51 to 75.		50 *Jura*	123·0
6 *Lozère*	54·6	51 *Vosges*	126·2
7 *Tarn*	55·0	52 *Ain*	128·2
8 *Côtes du Nord*	57·7	53 *Alpes marit.*	132·6
9 *Lot*	58·9	54 *Maine et Loire*	134·6
10 *Haute Savoy*	59·5	55 *Haute Marne*	141·7
11 *Cantal*	61·2	56 *Saône et Loire*	144·7
12 *Gers*	61·8	57 *Pas de Calais*	146·8
13 *Basses Pyrenees*	64·2	58 *Calvados*	147·5
14 *Morbihan*	64·6	**from 151 to 200.**	
15 *Haute Garonne*	65·9	59 *Meurthe Mos.*	155·0
16 *Vendee*	66·2	60 *Sarthe*	155·8
17 *Savoy*	66·4	61 *Charente Inf.*	160·2
18 *Creuse*	69·1	62 *Drôme*	162·2
19 *Ille et Vilaine*	69·2	63 *Charente*	164·3
20 *Corrèze*	69·3	64 *Ardennes*	165·7
21 *Loire*	70·8	65 *Rhone*	166·8
22 *Tarn et Garonne*	74·0	66 *Loir et Cher*	186·0
23 *Aude*	74·8	67 *Côte d'or*	187·4
from 76 to 100.		68 *Basses Alpes*	195·2
24 *Pyrenees orient.*	76·0	**from 201 to 250.**	
25 *Loire Inf.*	76·0	69 *B. du Rhone*	202·9
26 *Herault*	78·1	70 *Loiret*	206·7
27 *Mayenne*	82·7	71 *Vaucluse*	208·7
28 *Landes*	83·1	72 *Meuse*	212·8
29 *Allier*	83·9	73 *Indre et Loir*	213·2
30 *Manche*	84·5	74 *Yonne*	217·7
31 *Lot et Garonne*	84·5	75 *Somme*	219·3
32 *Ardèche*	84·6	76 *Var*	223·2
33 *Puy de Dôme*	86·1	77 *Seine Inf.*	240·2
34 *Vienne*	93·5	**from 251 to 300**	
35 *Nièvre*	94·1	78 *Eure*	255·1
36 *Orne*	96·9	79 *Eure et Loir*	273·5
37 *Isère*	97·9	80 *Aube*	284·8
38 *Hautes Alpes*	99·2	81 *Aisne*	297·9
from 101 to 150.		**from 301 & upwards.**	
39 *Haute Vienne*	101·1	82 *Marne*	300·6
40 *Indre*	103·6	83 *Seine et Marne*	383·5
41 *Cher*	104·9	84 *Seine et Oise*	388·8
42 *Finistere*	108·2	85 *Seine*	400·3
43 *Deux Sèvres*	111·0	86 *Oise*	407·2

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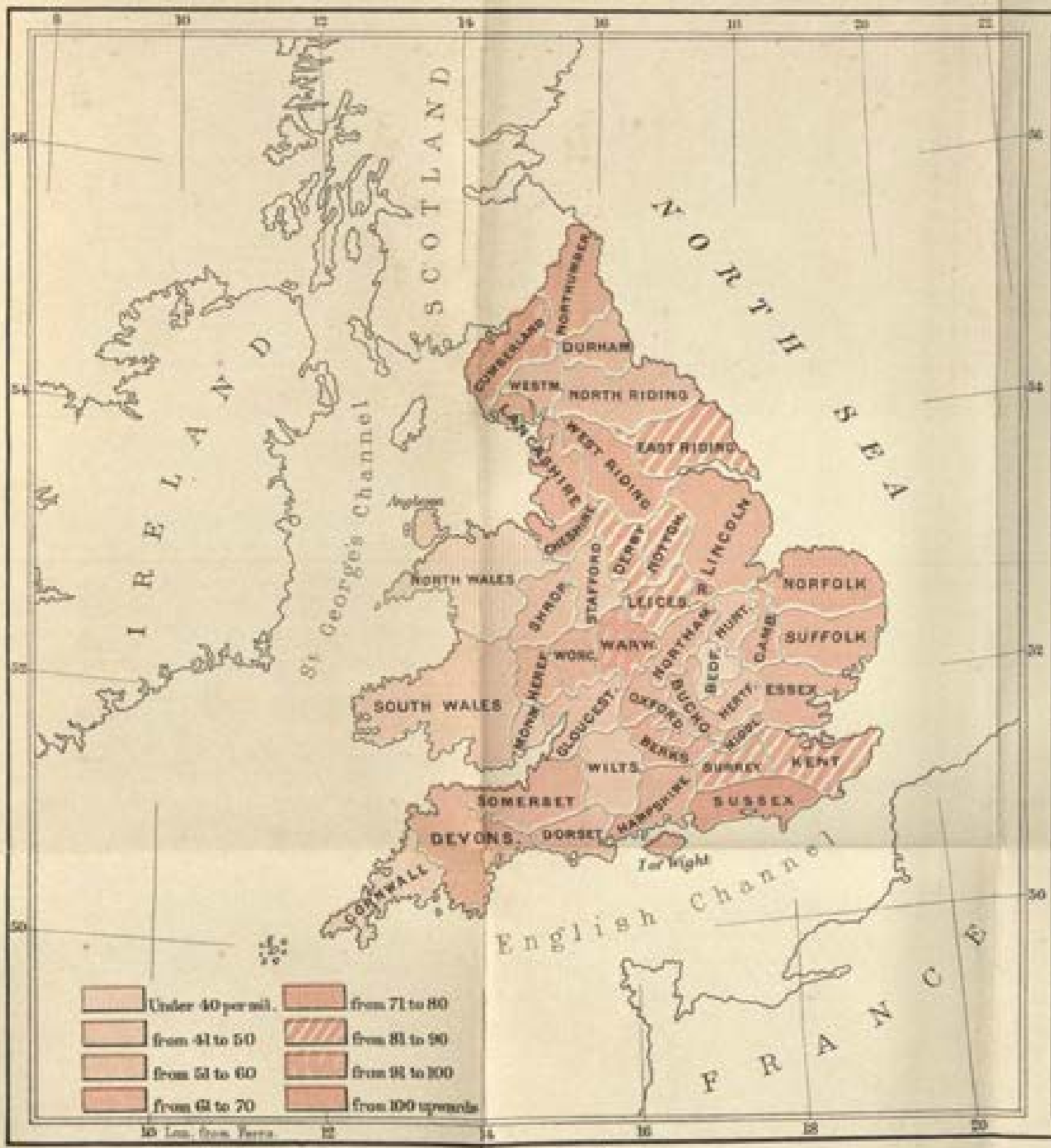

INTENSITY OF SUICIDE IN ENGLAND

IN EACH COUNTY.

Annual average number of suicides per 1 million inhabitants.

Period 1872-1876.

Under 40.		23 *Suffolk*	65·0
1 *North Wales*	36·7	24 *Herefordshire*	66·1
2 *Bedfordshire*	38·2	25 *Somersetshire*	66·3
3 *Cornwall*	38·5	26 *Lincolnshire*	68·6
from 41 to 50.		27 *Lancashire*	69·2
4 *South Wales*	43·8	28 *Cheshire*	70·3
5 *Monmouthshire*	46·4	29 *Northumb.*	70·5
6 *Wiltshire*	47·4	**from 71 to 80.**	
7 *Staffordshire*	49·1	30 *York W. Riding*	71·4
from 51 to 60.		31 *Northampton*	72·5
8 *Huntingdon*	50·6	32 *Berkshire*	76·0
9 *Dorsetshire*	50·7	33 *Norfolk*	77·0
10 *Hertfordshire*	53·4	**from 81 to 90.**	
11 *Durham*	53·6	34 *Nottingham*	81·5
12 *York N. Riding*	54·2	35 *Leicestershire*	83·2
13 *Westmoreland.*	58·3	36 *Derbyshire*	84·3
14 *Shropshire*	59·1	37 *York E. Riding*	86·1
15 *Gloucestershire*	59·5	38 *Kent*	87·4
from 61 to 70.		39 *Surrey*	90·3
16 *Buckinghamsh.*	61·9	**from 91 to 100.**	
17 *Worcestershire*	62·0	40 *Warwickshire*	92·3
18 *Hampshire*	62·3	41 *Cumberland*	96·2
19 *Essex*	62·6	42 *Middlesex*	98·9
20 *Devonshire*	62·6	**Above 100.**	
21 *Cambridgeshire*	63·5	43 *Sussex*	111·6
22 *Oxfordshire*	63·9	44 *Rutlandshire*	153·9

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